

S.S.127 Settentrionale Sarda  
Completamento circonvallazione di Tempio

**PROGETTO DEFINITIVO**

COD. CA350

**PROGETTAZIONE:** ATI VIA - SERING - VDP - BRENG

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Dott. Ing. Edoardo Antonio Quattrone

**GRUPPO DI PROGETTAZIONE**

MANDATARIA:

MANDANTI:



**IDROLOGIA E IDRAULICA**

Relazione di compatibilità idraulica

**CODICE PROGETTO**

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VERIFICATO

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M. CAPASSO

APPROVATO

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Completamento Circonvallazione di Tempio		
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## 1 PREMESSE


L'intervento realizza il secondo lotto dei lavori di adeguamento e messa in sicurezza della S.S. 127 "Settentrionale Sarda" che si sviluppa a nord del Comune di Tempio Pausania.

L'opera fa parte dei lavori di ammodernamento e sistemazione dell'itinerario Tempio - Olbia e prevede il completamento dell'itinerario con la realizzazione della circonvallazione di Tempio, con l'obiettivo di bypassare il centro abitato, riducendo i tempi di percorrenza dei traffici di attraversamento.

Il progetto prevede l'adozione di una tipologia C1 "Extraurbana secondaria" e si estende per uno sviluppo di circa 3,7 km, totalmente in nuova sede.

La presente relazione integra le osservazioni contenute nella Scheda\_Parere\_ADIS ricevute in merito al Procedimento per il rilascio del Provvedimento Unico Regionale in materia Ambientale (P.A.U.R.), di cui alla L.R. n. 2/2021 e alla Delib.G.R. n. 11/75 del 24.03.2021, relativo al progetto: "S.S. 127 Settentrionale Sarda. Completamento Circonvallazione di Tempio – Progetto Definitivo" nel Comune di Tempio Pausania (SS). Proponente: Società ANAS S.p.A. N. Reg. PAUR 13/23.

Nella Relazione idraulica (T00ID00IDRRE02) sono state definite le impostazioni teoriche adottate per la schematizzazione dei fenomeni naturali, le ipotesi semplificative assunte e le metodologie di calcolo utilizzate rispettivamente per l'idraulica fluviale e per i fenomeni fisici propri dell'interferenza tra le strutture d'attraversamento e corso d'acqua, ottenendo i risultati che in questa sede saranno utilizzati per l'analisi della compatibilità idraulica dei manufatti stradali interferenti con lo schema idrografico locale, sia principale, sia secondari in conformità alle condizioni imposte dalla normativa vigente.

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## 2 ANALISI DI COMPATIBILITA' IDRAULICA

### 2.1 *Idraulica fluviale e Compatibilità idraulica delle interferenze*

L'analisi delle interazioni che si verificano fra la corrente idrica, l'alveo del corso d'acqua in cui questa defluisce e le strutture in alveo degli attraversamenti fluviali è stata oggetto negli ultimi anni di una rinnovata attenzione da parte di progettisti e ricercatori.

La presenza di un attraversamento, infatti, quand'anche si prescinda dai problemi derivanti da un suo eventuale collasso o danneggiamento, può indurre conseguenze rilevanti sulla morfologia dell'alveo fluviale, sulle caratteristiche idrauliche della corrente e sullo stesso regime delle portate di piena. Ad esempio, si possono verificare migrazioni laterali d'alveo indotte dalla presenza in alveo delle infrastrutture del ponte, in particolare dei rilevati di accesso, riduzione della capacità di deflusso e conseguente rialzo dei livelli del pelo libero di monte, e formazione di invasi a monte del manufatto di attraversamento che possono essere amplificati dalla parziale ostruzione delle luci del ponte ad opera di detriti lapidei e vegetali trasportati dalla corrente. La formazione di tali invasi temporanei può avere conseguenze particolarmente rilevanti, poiché da un lato può provocare un sensibile rialzamento dei livelli a monte e conseguente sormonto dell'impalcato, dall'altro l'insorgenza di sollecitazioni anomale sia sulle pile dei ponti che soprattutto sull'impalcato. Ciò può portare al collasso del ponte, fenomeno che si sviluppa usualmente in tempi piuttosto brevi; si verifica così lo svaso rapido del volume idrico accumulato a monte, che si traduce in un incremento anche notevole del valore di portata del colmo di piena transitante a valle rispetto alla situazione di alveo indisturbato.

Nei paragrafi seguenti, dopo una sintesi dei principali riferimenti normativi relativi alla progettazione ed alla verifica della sicurezza degli attraversamenti fluviali, sono brevemente descritti gli approcci metodologici, i parametri idraulici e le formule applicative utilizzate per la valutazione quantitativa dei fenomeni di rigurgito della corrente a monte degli attraversamenti e dei fenomeni erosivi alla base delle strutture in alveo.

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## 2.2 Riferimenti normativi


### 2.2.1 Prescrizioni normative del Ministero dei Lavori Pubblici

In Italia i riferimenti normativi ai quali si deve attenere il progettista degli attraversamenti fluviali sono contenuti nel Decreto Ministeriale del 2 agosto 1980 e in quello del 4 maggio 1990, ai quali ha fatto seguito la Circolare n. 34233 emanata in data 25 febbraio 1991 dal Ministero dei Lavori Pubblici, recante "Istruzioni relative alla normativa tecnica dei ponti stradali". Recentemente le Norme Tecniche per le Costruzioni NTC2018 ha integrato in alcune parti le norme dei precedenti decreti, riguardanti prevalentemente le azioni da prevedere per i calcoli statici. Il presente progetto fa riferimento alle norme di compatibilità idraulica delle NTC 2018. Le norme prescrivono di assumere normalmente quale portata di progetto quella corrispondente a un tempo di ritorno non inferiore a duecento anni per la quale i calcoli idraulici dovranno verificare la sussistenza di un franco minimo tra il livello di massima piena e l'impalcato del ponte (di  $1,5 \div 2$  m).

Viene inoltre suggerito di stimare la frequenza probabile dell'evento di piena che dà luogo all'annullamento del franco ed in ogni caso si stabilisce che, per i corsi d'acqua arginati, la quota di sottotrave del ponte deve essere non inferiore a quella della sommità arginale.

Nello studio idraulico dell'opera, devono essere oggetto d'indagine i seguenti problemi: classificazione del corso d'acqua ai fini dell'esercizio della navigazione interna; valutazione dello scavo localizzato con riferimento alle forme ed alle dimensioni delle pile, delle spalle, delle fondazioni nonché dei rilevati; valutazione degli effetti dovuti all'eventuale presenza di correnti veloci; esame delle conseguenze della presenza di eventuali corpi natanti, flottanti e trasportati dalle acque, ove ricorra detta possibilità, nonché delle conseguenze di eventuali ostruzioni delle luci, specie se queste possono creare invasi anche temporanei a monte, sia in fase costruttiva, sia durante l'esercizio delle opere. In situazioni particolarmente complesse si suggerisce di sviluppare le indagini anche con l'ausilio di modelli fisici in scala ridotta.


Nel complesso, le norme emanate dal Ministero dei Lavori Pubblici fissano il quadro di riferimento per lo sviluppo della relazione sugli aspetti idrologici, idrografici ed idraulici prescritta a corredo della progettazione dell'attraversamento fluviale, delineando anche i criteri generali che devono guidare l'articolazione di tale relazione.

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### 2.2.2 Prescrizioni normative ABPO

Per quanto riguarda i criteri di progetto e di compatibilità adottati nella progettazione delle opere di attraversamento, per quanto non specificatamente indicato nelle Norme di attuazione del PAI della Regione Sardegna, si è fatto riferimento a quanto espresso nella *"Direttiva n. 4 –Criteri per la valutazione della compatibilità idraulica delle infrastrutture pubbliche e di interesse pubblico all'interno delle fasce A e B"* allegata alle Norme di Attuazione dell'Autorità di Bacino del fiume PO.

Lo studio di compatibilità è stato pertanto finalizzato a valutare che l'inserimento della struttura sia coerente con l'assetto idraulico del corso d'acqua e non comporti alterazioni delle condizioni di rischio idraulico, ed al contempo sono state valutate in modo adeguato le sollecitazioni di natura idraulica cui è sottoposta l'opera, in rapporto alla sicurezza della stessa.

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I criteri di compatibilità adottati possono essere pertanto sintetizzati in quanto segue:

1. *Portata di piena di progetto.*

Per quanto riguarda gli scenari di riferimento presi in considerazione nelle verifiche di compatibilità idraulica degli attraversamenti principali, in ottemperanza a quanto stabilito dalle norme, è stato assunto il Tempo di ritorno di 200 anni.


2. *Franco minimo.*

Il minimo franco tra la quota idrometrica relativa alla piena di progetto e la quota di intradosso del ponte è stato assunto non inferiore a 0.5 volte l'altezza cinetica della corrente e comunque non inferiore a un 1.00 m; il valore del franco deve essere assicurato per almeno 2/3 della luce quando l'intradosso del ponte non sia rettilineo e comunque per almeno 40 m, nel caso di luci superiori a tale valore.

3. *Posizionamento del ponte rispetto all'alveo.*

L'insieme delle opere costituenti l'attraversamento non deve comportare condizionamenti al deflusso della piena e indurre modificazioni all'assetto morfologico dell'alveo. L'orientamento delle pile (ed eventualmente delle spalle) deve essere parallelo al filone principale della corrente. In particolare devono essere rispettate le seguenti condizioni:

- per i corsi d'acqua non arginati le pile e le spalle devono essere poste al di fuori delle sponde incise dell'alveo; in via eccezionale la pila può interessare la sponda, purché sia integrata con opportuni accorgimenti di difesa e di rivestimento;
- nei casi in cui il ponte sia inserito in un tratto di corso d'acqua interessato da altre opere di attraversamento poste in adiacenza, a monte o a valle, è necessario che le pile in alveo (ed eventualmente le spalle) siano allineate con quelle esistenti in modo che le pile presenti, considerate

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congiuntamente, non riducano la luce effettiva disponibile, anche ai fini del rischio di ostruzione da parte del materiale trasportato in piena;

- la struttura deve consentire il mantenimento della continuità della pista di servizio in fregio al corso d'acqua ovvero sul rilevato arginale.

#### 4. *Effetti idraulici indotti dal ponte.*

La soluzione progettuale per il ponte e per i relativi rilevati di accesso deve garantire l'assenza di effetti negativi indotti sulle modalità di deflusso in piena; in particolare il profilo idrico di rigurgito eventualmente indotto dall'insieme delle opere di attraversamento deve essere compatibile con l'assetto difensivo presente e non deve comportare un aumento delle condizioni di rischio idraulico per il territorio circostante. Vanno inoltre verificati seguenti aspetti aggiuntivi:

- assenza di riduzione della superficie delle aree allagabili per effetto del ponte al fine di evitare effetti di minore laminazione della piena lungo l'asta fluviale;
- compatibilità dell'opera e delle eventuali sistemazioni idrauliche connesse con gli effetti indotti da possibili ostruzioni delle luci ad opera di corpi flottanti trasportati dalla piena ovvero di deposito anomalo di materiale derivante dal trasporto solido, soprattutto nel caso possano realizzarsi a monte invasi temporanei di dimensione significativa.


#### 5. *Opere idrauliche collegate al ponte.*

Nel caso in cui l'inserimento o la presenza del ponte comporti la realizzazione di opere idrauliche con funzioni di sistemazione dell'alveo nel tratto interessato dall'attraversamento, il progetto deve comprendere la definizione delle opere stesse con lo stesso livello di dettaglio relativo all'opera principale.

### 2.2.3 *Prescrizioni normative dell'Autorità di Bacino della Regione Sardegna*

Premesso che, come già accennato nella Relazione Idrologica, dall'analisi della documentazione cartografica allegata al PAI (inclusi gli aggiornamenti dello "Studio CINSIA" e del PSFF) si è riscontrato che l'intervento in progetto risulta interessare alcune aree



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perimetrare a pericolosità o rischio idraulico, assoggettabili alle disposizioni di cui al Titolo III delle Norme di Attuazione del PAI.

E' stata pertanto condotta un'attenta analisi idraulica volta a dimostrare la compatibilità idraulica delle soluzioni proposte per risolvere le interferenze idrauliche del tracciato nel seguito dettagliate, riguardanti non solo i corsi d'acqua perimetrati nel PAI ma anche quelli non inclusi nelle aree di pericolosità o rischio idraulico.

In tale analisi sono stati tenuti in debita considerazione gli obiettivi, finalità, indirizzi e raccomandazioni contenute nel PAI e di seguito brevemente citati. In particolare **l'Allegato E** alle Norme del PAI, dà indicazioni circa i criteri per la predisposizione degli studi di compatibilità idraulica di cui all'articolo 24 delle norme stesse, come riportato di seguito:


*"Nei casi in cui è espressamente richiesto dalle norme di attuazione del PAI, i progetti preliminari, ai sensi della Legge n. 109 del 11 febbraio 1994, degli interventi da realizzarsi nelle aree di pericolosità idraulica sono corredati da uno studio di compatibilità idraulica in cui si dimostri la coerenza con le finalità indicate nell'articolo 23, comma 6, e nell'articolo 24 delle norme di attuazione del PAI e si dimostri in particolare che l'intervento sottoposto all'approvazione è stato progettato rispettando il vincolo di non aumentare il livello di pericolosità e di rischio esistente - fatto salvo quello eventuale intrinsecamente connesso all'intervento ammissibile - e di non precludere la possibilità di eliminare o ridurre le condizioni di pericolosità e rischio.*

*La compatibilità idraulica dell'intervento proposto: a) è verificata in funzione degli effetti dell'intervento sui i livelli di pericolosità rilevati dal PAI; b) è valutata in base agli effetti sull'ambiente tenendo conto dell'evoluzione della rete idrografica complessiva e del trasferimento della pericolosità a monte e a valle.*

*Lo studio di compatibilità idraulica non sostituisce ma integra tra l'altro i criteri e gli strumenti di valutazione previsti dalla Legge n. 64 del 2 febbraio 1974, dal D.M. 12 dicembre 1985, dal D.M. LL.PP 11 marzo 1988 e dalla Circolare esplicativa n. 30483 del 24 settembre 1988, dalla Legge n. 109 del 11 febbraio 1994 (Norme urgenti in materia di lavori pubblici) e s.m.i., dalle norme nazionali in materia di valutazione di impatto ambientale e di valutazioni di incidenza, dalle disposizioni dell'ordinamento della Regione Sardegna.*

*Lo studio di compatibilità idraulica deve contenere e illustrare:*

- *l'analisi idrologica finalizzata alla definizione della piena di riferimento completa di caratterizzazione geopedologica del bacino sotteso dalla sezione di controllo. La stima della piena di riferimento va condotta per i tempi di ritorno relativi al livello di pericolosità dell'area interessata dall'intervento e per i tempi di ritorno superiori tra quelli indicati dalla relazione del PAI;*

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- *l'analisi idraulica dell'asta fluviale e dell'area di allagamento compresa tra due sezioni caratterizzate da condizioni al contorno definibili;*
- *l'analisi dei processi erosivi in alveo e nelle aree di allagamento;*
- *l'analisi dei processi erosivi e delle sollecitazioni nei manufatti.*

*Per quanto attiene le metodologie di analisi idrologica e idraulica si applicano almeno i criteri indicati nelle Linee Guida allegate alla Relazione del PAI.*

*Lo studio deve essere corredato da:*

- *relazione tecnica illustrativa ed esplicativa delle procedure adottate e delle analisi svolte;*
- *risultati delle elaborazioni numeriche;*
- *elaborati grafici di dettaglio almeno alla scala della cartografia del PAI consegnati anche su supporto informatico; i relativi dati devono essere georeferenziati secondo standard opportuni per consentire l'aggiornamento del SIT della Regione Sardegna;*
- *documentazione grafica con apposite sezioni e profili idraulici a scala adeguata atti ad identificare i livelli di piena;*
- *piano di manutenzione degli interventi;*
- *piano di monitoraggio per il controllo della efficacia degli interventi".*


Per quanto riguarda gli scenari di riferimento presi in considerazione nelle verifiche di compatibilità idraulica degli attraversamenti è stata assunta la portata di progetto relativa al tempo di ritorno di 200 anni ed un franco minimo, tra il livello di massima piena e la quota di intradosso, calcolato secondo le indicazioni contenute all'interno dell'art. 21 comma 2 lettera d "Indirizzi per la progettazione, la realizzazione e manutenzione delle infrastrutture" delle Norme del PAI aggiornate a giugno 2020:

*Le disposizioni e norme tecniche tendono a stabilire principi generali e prescrizioni affinché le attività di progettazione, realizzazione e manutenzione di cui al precedente comma:*

*.....omissis*

*d. garantiscano un franco sul livello della portata di progetto, per velocità medie della corrente inferiori a 8 m/s, pari a quanto indicato dall'analisi modellistica sul franco idraulico approvata dal Comitato istituzionale dell'Autorità di Bacino, corrispondente al massimo tra:*


- 1)  $0.7 \frac{v^2}{2g}$  dove indica la velocità media della corrente;
- 2) un metro;

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- 3)  $0.87\sqrt{y} + \alpha y'$  dove  $y$  è la profondità media della corrente,  $y'$  è l'altezza della corrente areata ed  $\alpha$  un coefficiente che varia linearmente tra 0 e 1 quando la velocità varia tra 5 m/s e 15 m/s, con le limitazioni che il valore  $0.87\sqrt{y}$  sarà assunto al massimo pari a 1,5 ed  $y'$  viene assunto pari a 2 metri o alla profondità media, se questa risulta minore di 2.

Per velocità superiori a 8 m/s il franco sarà almeno pari all'intera altezza cinetica  $\frac{v^2}{2g}$ ;

(lettera così modificata dal Decreto del Presidente della Regione Sardegna n° 148 del 26 ottobre 2012)

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## 2.3 Attraversamenti corsi d'acqua maggiori: ponti

Si riportano nei successivi sottoparagrafi le tabelle con i valori di portata, al variare del tempo di ritorno, e di livello che si instaurano a monte ed a valle degli attraversamenti in progetto (dati desumibili dall'elaborato T00ID00IDRRE02\_C).

### 2.3.1 Riu Battinu


<b>SS 127 - NUOVO VIADOTTO VI01_Battinu</b>
<b>Rif. Pr. HEC-RAS: 400 - 379</b>

Bacino	Sezione		Quota liquida max	Quota intradosso viadotto	Portata	Franco calcolato
B.01	400	Tr200	468	471,47	17,06	3,47
B.01	400	Tr050	467,72	471,47	12,16	3,75
B.01	400	Tr100	467,87	471,47	14,56	3,6
B.01	400	Tr500	468,17	471,47	20,44	3,3
B.01	379	Tr200	467,85	471,47	17,06	3,62
B.01	379	Tr050	467,57	471,47	12,16	3,9
B.01	379	Tr100	467,71	471,47	14,56	3,76
B.01	379	Tr500	468,02	471,47	20,44	3,45

In base a quanto stabilito dalla normativa vigente, come detto, la verifica di compatibilità dei nuovi manufatti interferenti con l'idrografia principale deve essere condotta considerando le condizioni di piena che si instaurano con un tempo di ritorno duecentennale, garantendo un franco minimo dato dal massimo valore parametrico indicato nel paragrafo 2.2.3 e funzione della velocità media del flusso idrico nella sezione di controllo considerata.

Nel caso presente, trattandosi di impalcati a sezione variabile, per completezza si considera come quota di estradosso cui riferire il franco, la quota sia di monte che di valle.

Per maggiori dettagli in merito alla geometria d'alveo adottata, ai risultati delle simulazioni idrauliche condotte, sia in condizioni Ante Operam, sia in condizioni Post Operam, si rimanda all' allegato A della presente relazione.

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### 2.3.2 Fiume\_03


<b>SS 127 - NUOVO VIADOTTO VI02_Mulaglia</b>
<b>Rif. Pr. HEC-RAS: 326</b>

Bacino	Sezione		Quota liquida max	Quota intradosso viadotto	Portata	Franco calcolato
B.03	326	Tr200	471,47	491,38	10,50	19,87
B.03	326	Tr050	471,2	491,38	7,65	20,15
B.03	326	Tr100	471,33	491,38	9,08	20,02
B.03	326	Tr500	471,64	491,38	12,50	19,70

In base a quanto stabilito dalla normativa vigente, come detto, la verifica di compatibilità dei nuovi manufatti interferenti con l'idrografia principale deve essere condotta considerando le condizioni di piena che si instaurano con un tempo di ritorno duecentennale, garantendo un franco minimo dato dal massimo valore parametrico indicato nel paragrafo 2.2.3 e funzione della velocità media del flusso idrico nella sezione di controllo considerata.

Nel caso presente, trattandosi di impalcati a sezione variabile, si considera come quota di estradosso cui riferire il franco, la quota minima che si colloca generalmente in corrispondenza delle pile centrali.

Per maggiori dettagli in merito alla geometria d'alveo adottata, ai risultati delle simulazioni idrauliche condotte, sia in condizioni Ante Operam, sia in condizioni Post Operam, si rimanda all'Allegato B della presente relazione.

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### 2.3.3 Riu Manzoni


<b>SS 127 - NUOVO VIADOTTO VI03_Manzoni</b>
<b>Rif. Pr. HEC-RAS: 606</b>

Bacino	Sezione		Quota liquida max	Quota intradosso viadotto	Portata	Franco calcolato
B.06	606	Tr200	459,24	470,27	667,32	11,03
B.06	606	Tr050	458,68	470,27	667,32	11,59
B.06	606	Tr100	458,95	470,27	667,32	11,32
B.06	606	Tr500	459,64	470,27	667,32	10,63

In base a quanto stabilito dalla normativa vigente, come detto, la verifica di compatibilità dei nuovi manufatti interferenti con l'idrografia principale deve essere condotta considerando le condizioni di piena che si instaurano con un tempo di ritorno duecentennale, garantendo un franco minimo dato dal massimo valore parametrico indicato nel paragrafo 2.2.3 e funzione della velocità media del flusso idrico nella sezione di controllo considerata.

Nel caso presente, trattandosi di impalcati a sezione variabile, si considera come quota di estradosso cui riferire il franco, la quota minima che si colloca generalmente in corrispondenza delle pile centrali.

Per maggiori dettagli in merito alla geometria d'alveo adottata, ai risultati delle simulazioni idrauliche condotte, sia in condizioni Ante Operam, sia in condizioni Post Operam, si rimanda all'Allegato B della presente relazione.

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## 2.4 Attraversamenti minori: i tombini idraulici

La verifica idraulica dei tombini, posti in corrispondenza delle interferenze con i corsi d'acqua indagati, è stata effettuata con l'ausilio di apposito foglio di calcolo, confrontando la portata di progetto **Q<sub>p</sub>** [m<sup>3</sup>/s] con la portata massima smaltibile dal manufatto **Q<sub>max</sub>** [m<sup>3</sup>/s], calcolata considerando i tombini con funzionamento a pelo libero.

I tombini sono stati studiati come segue:

- tombini del reticolo idrografico principale. Dopo aver eseguito le simulazioni idrauliche, è stato verificato il rispetto dei franchi, con i criteri descritti dalle NTA del PAi e secondo le prescrizioni delle NTC 2018 e della Circolare n.7 del 2019.
- tombini di continuità. Verificati nell'ipotesi di moto uniforme, confrontando la portata di progetto con la portata massima smaltibile, considerando un grado di riempimento pari a 1/2 della luce libera. In questo secondo caso l'ipotesi di moto uniforme risulta sufficiente data la regolarità delle pendenze e delle condizioni di imbocco e sbocco che, per la conformazione dei manufatti, non presentano particolari impedimenti al deflusso e rendono trascurabili le perdite di carico localizzate.

Qui di seguito si riportano i risultati ottenuti dalla verifica dei franchi idraulici per tutti i tombini in progetto.


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Tabella 2-1 - Verifica tombini Asse principale

ID Opera	ID El. Idr.	Progressiva	Tipologico	Geometria			TR 200															
				B	H o D	L	Q200	Quota fondo IN	Quota fondo OUT	i	Livello idrico	Intradosso minimo	y	α	V	F1	F2	F3	F4	F <sub>NTC2018</sub>	Flim	Fcalc
				(m)	(m)	(m)	(mc/s)	(m s.l.m.)	(m s.l.m.)	(%)	(m s.l.m.)	(m s.l.m)	(m)	(-)	(m/s)	(m)	(m)	(m)	(m)	(m)	(m)	(m)
TM_AP_01	Fiume_01	0+580.00	Scatolare	2	2	18.9	1.15	477.89	476.89	0.91	477.96	479.89	0.07	0	2.9	0.23	0.23	0.30	1.0	0.7	1	1.93
TM_AP_02	Fiume_02	0+720.00	Scatolare	3	3	34.95	0.58	478.25	472.32	5.01	478.39	481.25	0.14	0	2.5	0.33	0.33	0.22	1.0	1.0	1	2.86
TM_AP_03	Fiume_04	1+620.00	Scatolare	3	3	40.45	1.35	478.89	476.87	4.99	479.41	481.89	0.52	0	2.55	0.63	0.63	0.23	1	1	1	2.48
TM_AP_04	Fiume_05	1+900.00	Scatolare	3	3	38.5	1.48	469.37	467.44	5.01	469.89	472.37	0.52	0	2.81	0.63	0.63	0.28	1	1	1	2.48
TM_AP_05	Fiume_06	2+460.00	Scatolare	3	3	35.25	0.86	472.67	471.66	2.87	473.63	475.67	0.96	0	2.07	0.85	0.85	0.15	1	1	1	2.04
TM_AP_06	Fiume_07	3+220.00	Scatolare	2	2	22.75	0.64	487.08	486.54	3.82	487.26	489.1	0.18	0	2.05	0.37	0.37	0.15	1	0.7	1	1.84

Tabella 2-2 - Verifica tombini di continuità


ID Opera	ID Elemento Idrico Afferente	Tipologico verificato	Geometria		Progetto		Quota fondo imbocco	Quota fondo sbocco	Pendenza	Grado Riempimento	h	θ	A	P	R	K	V	Verifica		
			D	L	Qp													Qmax		
			[m]	[m]	[mc/s]	[l/s]	[m s.l.m.]	[m s.l.m.]	[%]	[%]	[m]	[rad]	[m²]	[m]	[m]	[m¹³/s]	[m/s]	[m³/s]	[l/s]	
TM_AS_02	FS-04a	Tubazione	0.80	22.54	0.022	21.890	466.49	466.00	2.17%	50%	0.4	3.142	0.38	1.59	0.24	70	0.395	0.148	148.41	OK
TM_AS_04	FS-04b	Tubazione	0.80	15.78	0.042	42.077	466.49	465.03	9.25%	50%	0.4	3.142	0.38	1.59	0.24	70	0.815	0.306	306.41	OK
TM_AS_01	FS-06a	Tubazione	0.80	12.14	0.043	43.410	467.44	466.70	6.10%	50%	0.4	3.142	0.38	1.59	0.24	70	0.662	0.249	248.83	OK



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*Relazione di compatibilità idraulica*


ID Opera	ID Elemento Idrico Afferente	Tipologico verificato	Geometria		Progetto		Quota fondo imbocco	Quota fondo sbocco	Pendenza	Grado Riempimento	h	ϑ	A	P	R	K	V	Verifica		
			D	L	Qp													Qmax		
			[m]	[m]	[mc/s]	[l/s]												[m s.l.m.]	[l/s]	
TM_AS_03	FS- 25a	Tubazione	0.80	5.10	0.013	12.704	477.00	476.15	16.67%	50%	0.4	3.142	0.38	1.59	0.24	70	1.095	0.411	411.34	OK
TM_AS_05	FS-27	Tubazione	0.80	8.48	0.042	42.077	473.00	472.49	6.01%	50%	0.4	3.142	0.38	1.59	0.24	70	0.657	0.247	246.99	OK
TM_AS_07	FS-27, FS-29a, FS-29b	Tubazione	0.80	4.19	0.080	79.534	469.29	468.90	9.31%	50%	0.4	3.142	0.38	1.59	0.24	70	0.818	0.307	307.41	OK
TM_AS_13	FS-43	Tubazione	0.80	17.80	0.086	86.227	487.00	486.55	2.53%	50%	0.4	3.142	0.38	1.59	0.24	70	0.426	0.16	160.25	OK
TM_AS_14	FS-44	Tubazione	0.80	19.07	0.040	39.706	487.20	486.50	3.67%	50%	0.4	3.142	0.38	1.59	0.24	70	0.514	0.193	193.01	OK
TM_AS_15	FS-40	Tubazione	0.80	15.44	0.007	6.815	490.45	489.55	5.83%	50%	0.4	3.142	0.38	1.59	0.24	70	0.647	0.243	243.26	OK

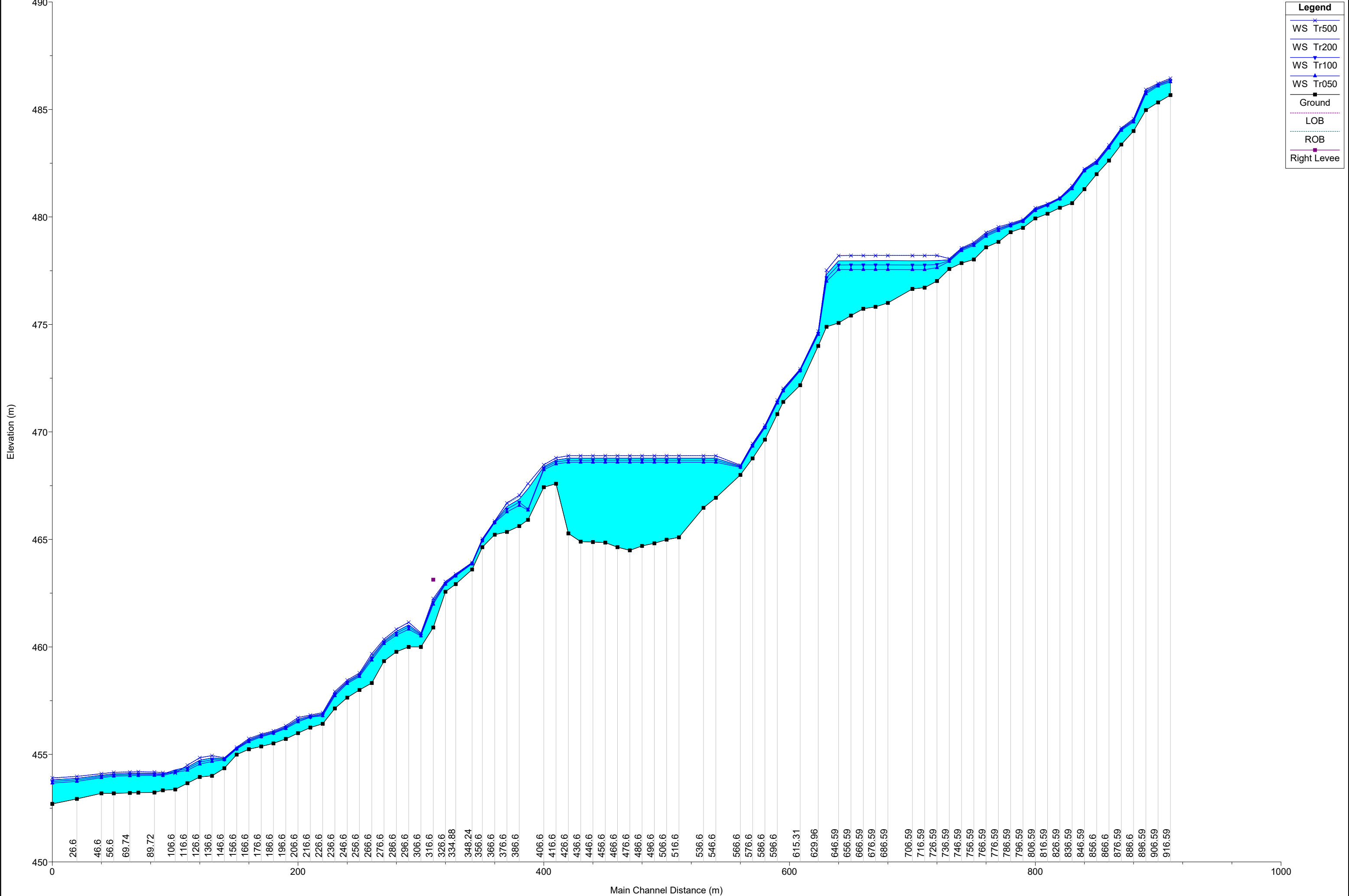
<b>S.S. 127 "Settentrionale Sarda"</b> Completamento Circonvallazione di Tempio		
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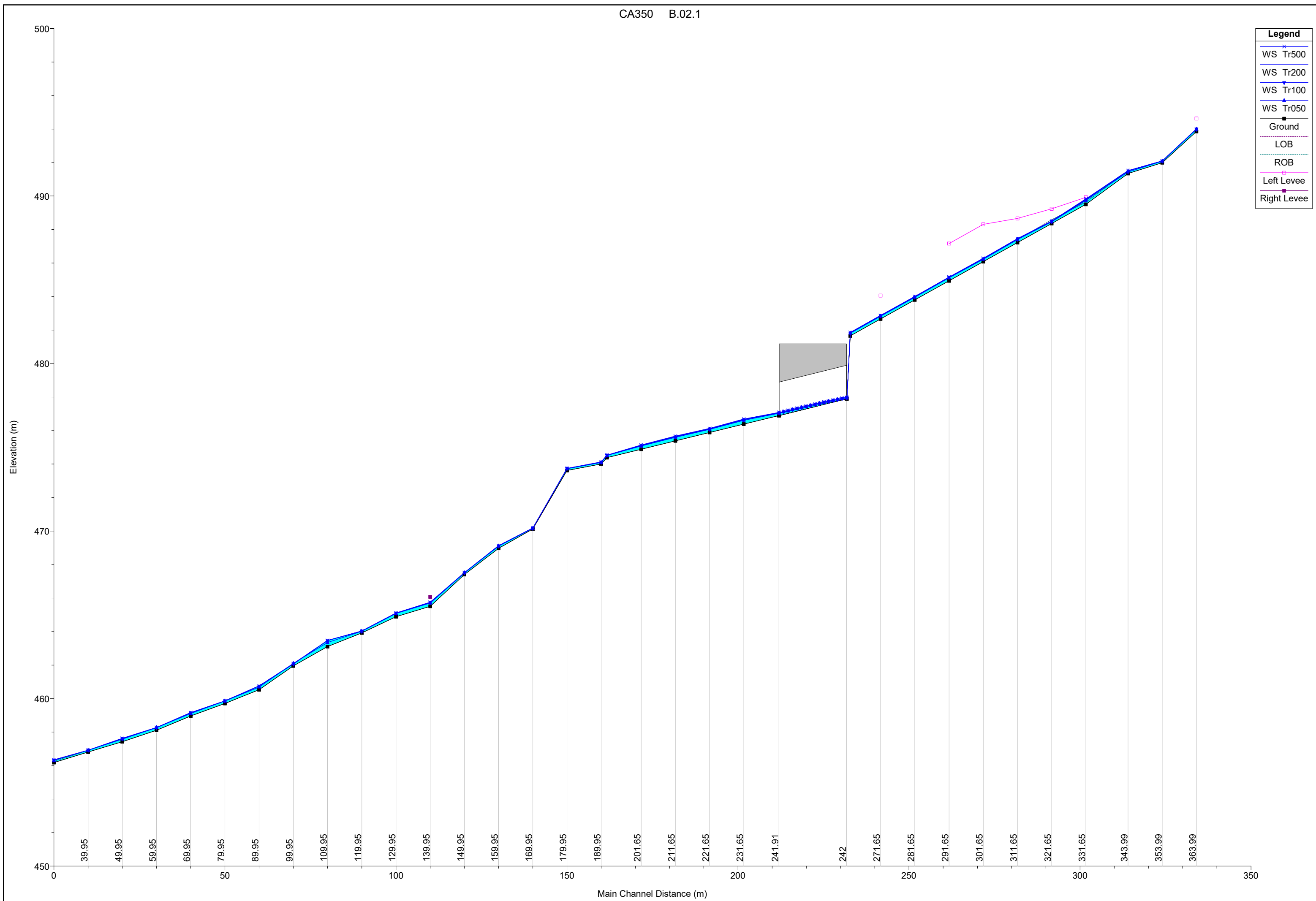
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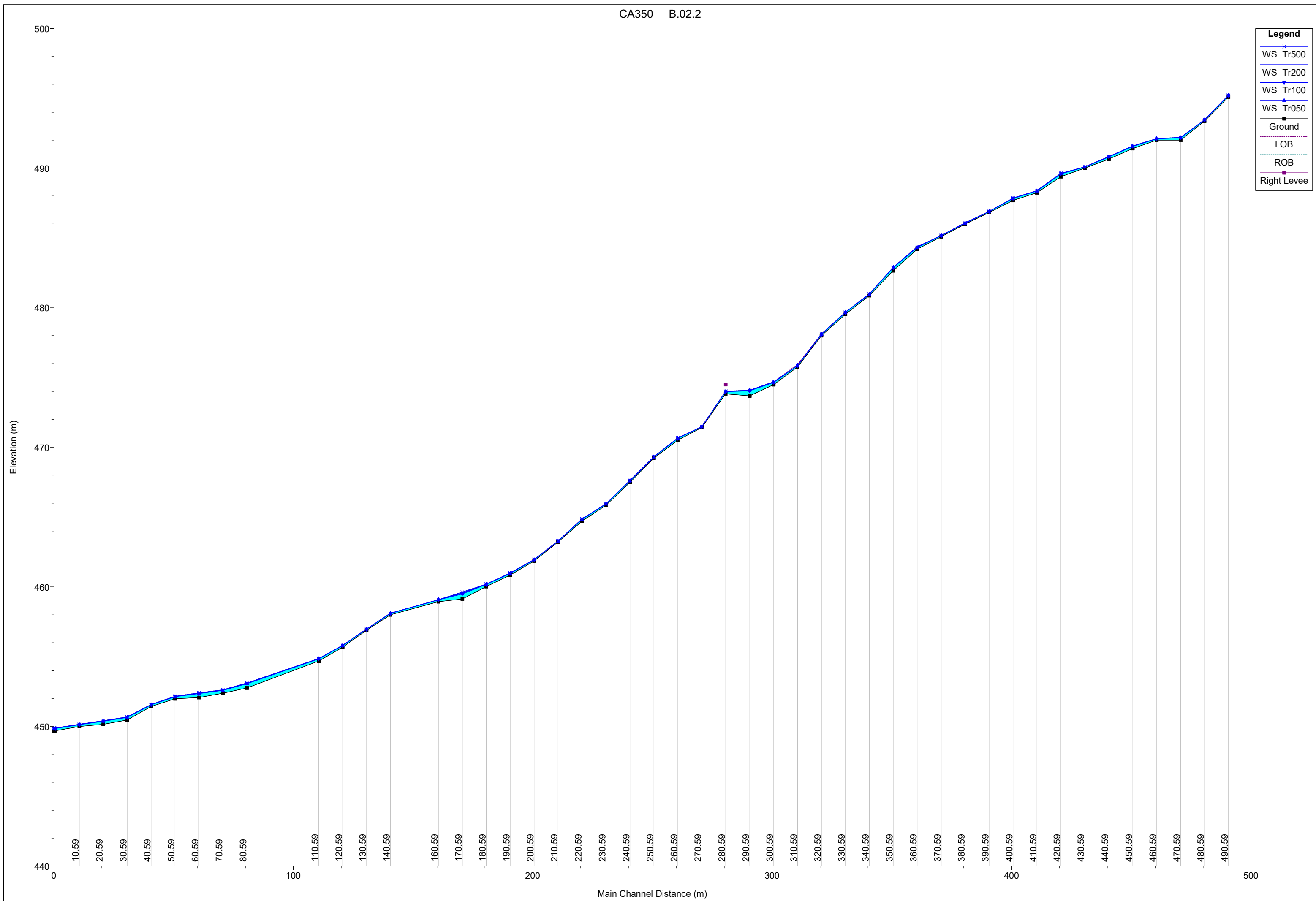
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CA350	<i>Relazione di compatibilità idraulica</i>	

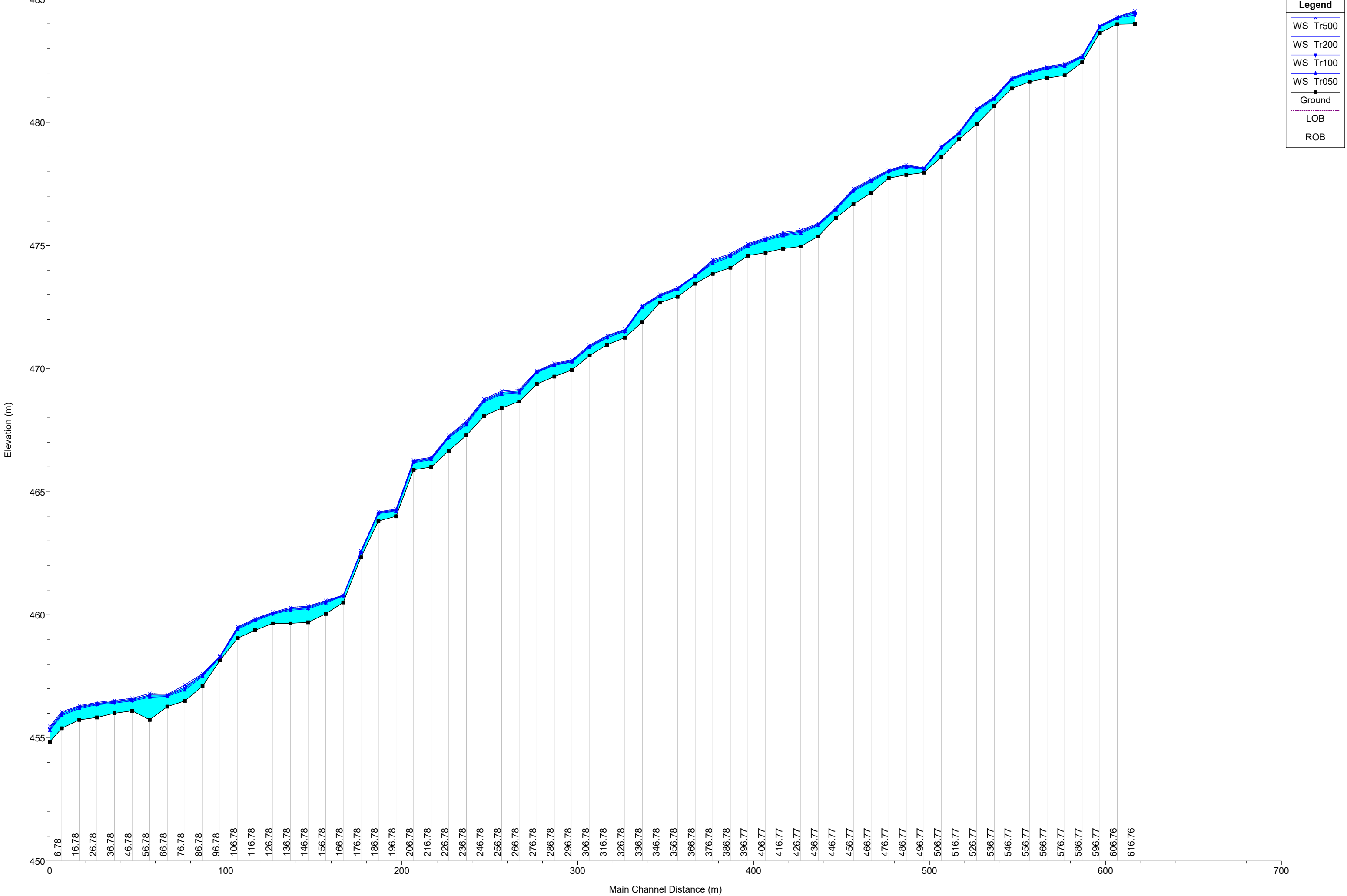
## ALLEGATO A      SIMULAZIONI ANTE e POST OPERAM

<b>S.S. 127 "Settentrionale Sarda"</b> Completamento Circonvallazione di Tempio		
CA350	<i>Relazione di compatibilità idraulica</i>	

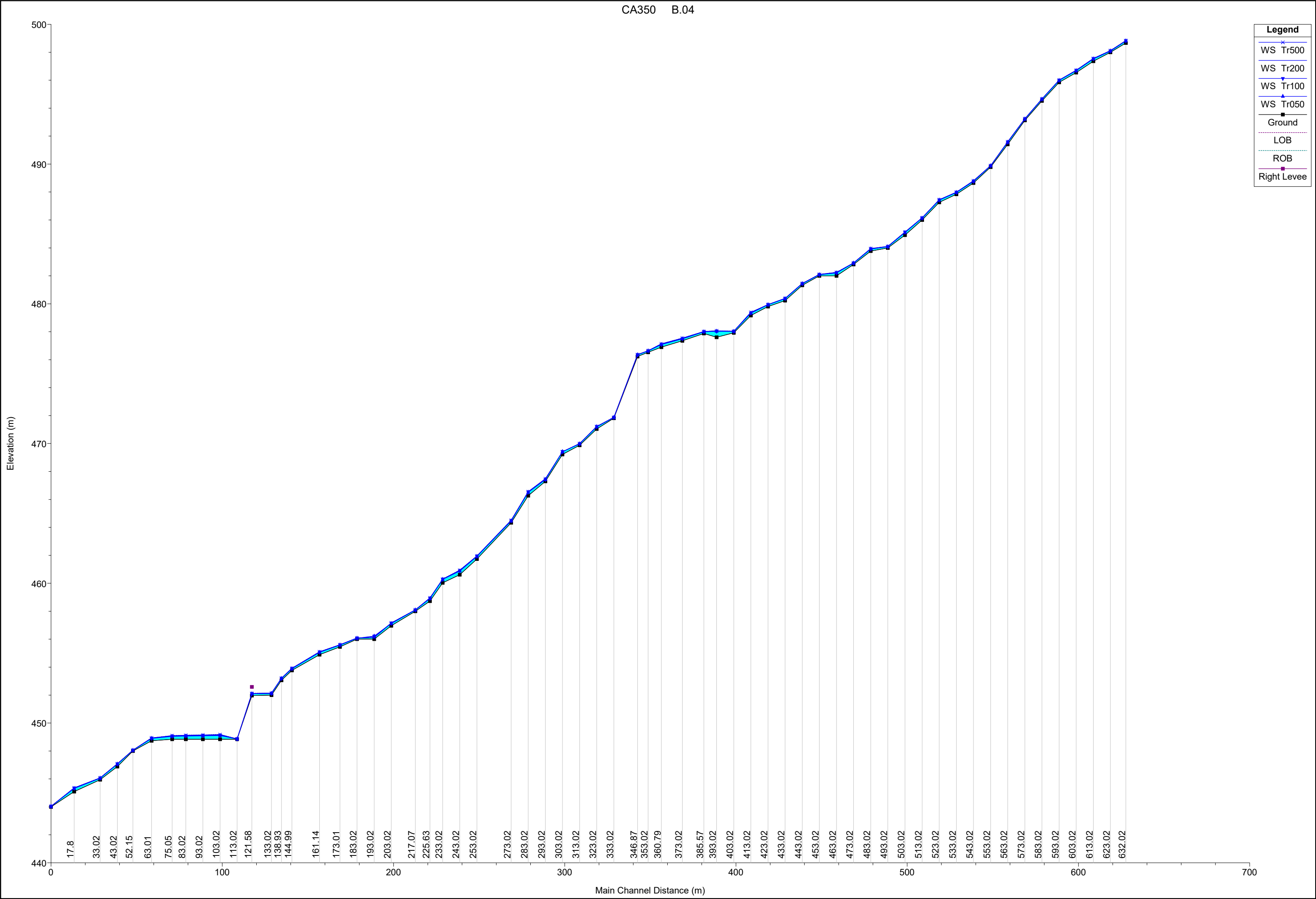


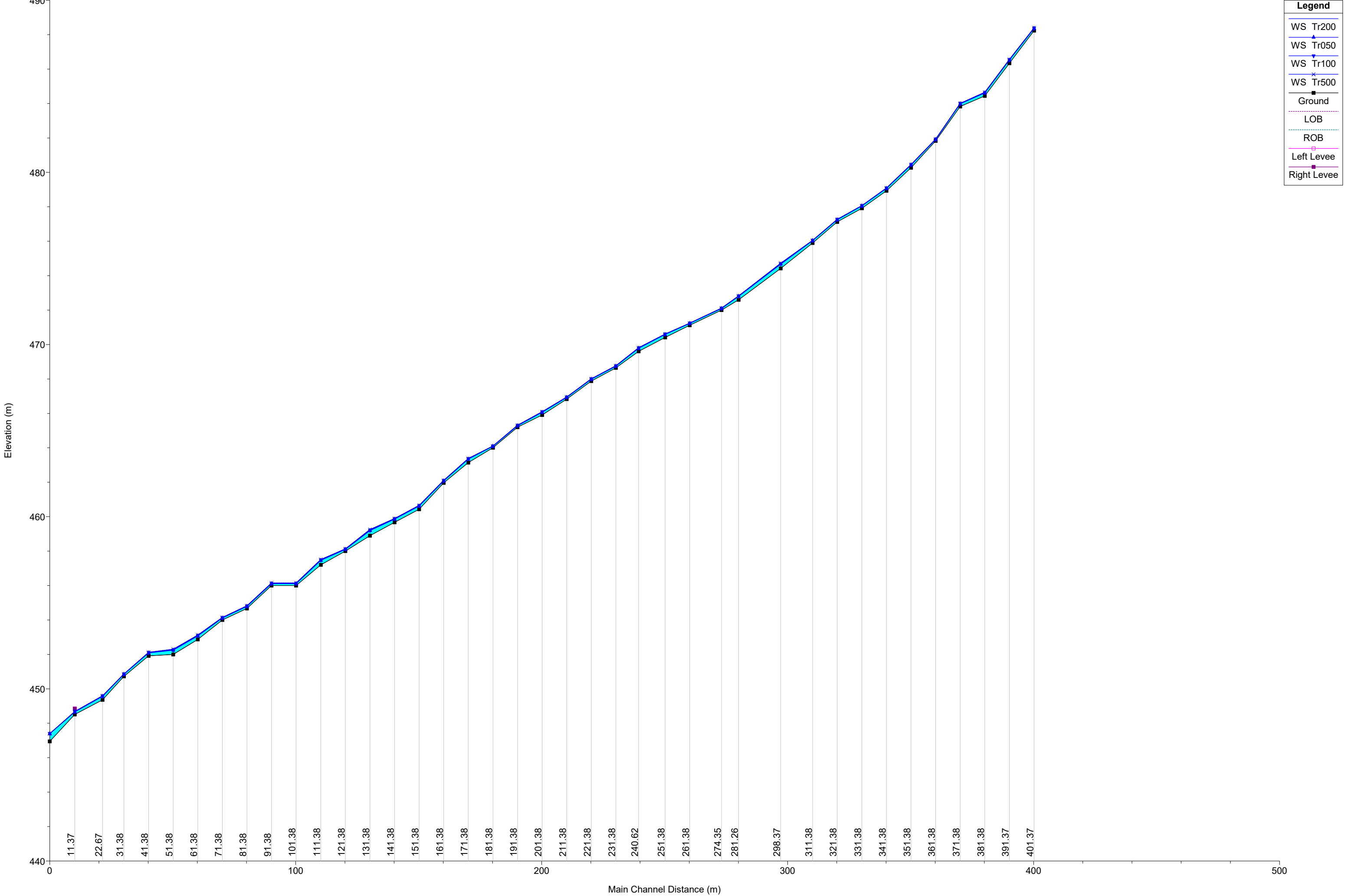


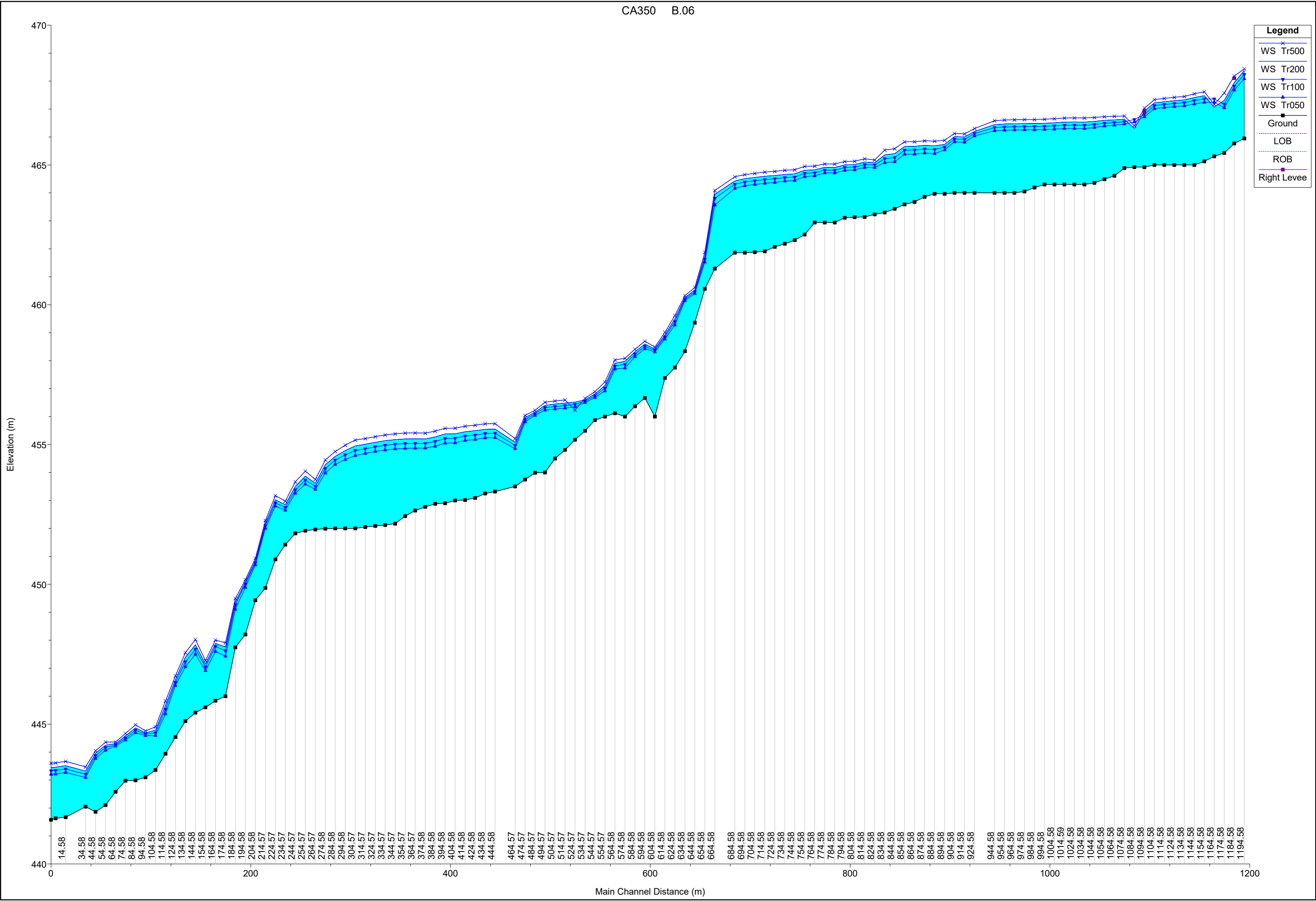


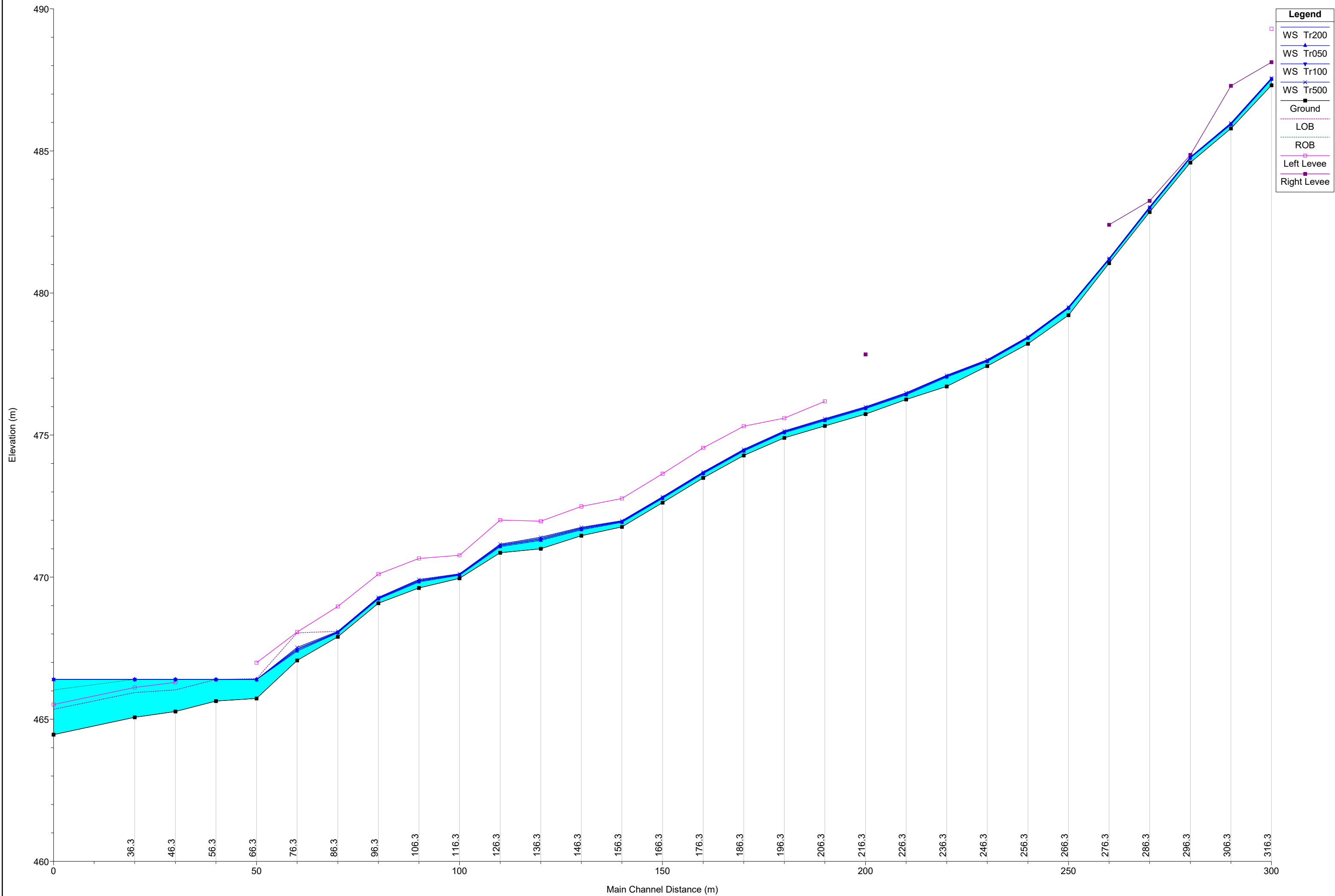


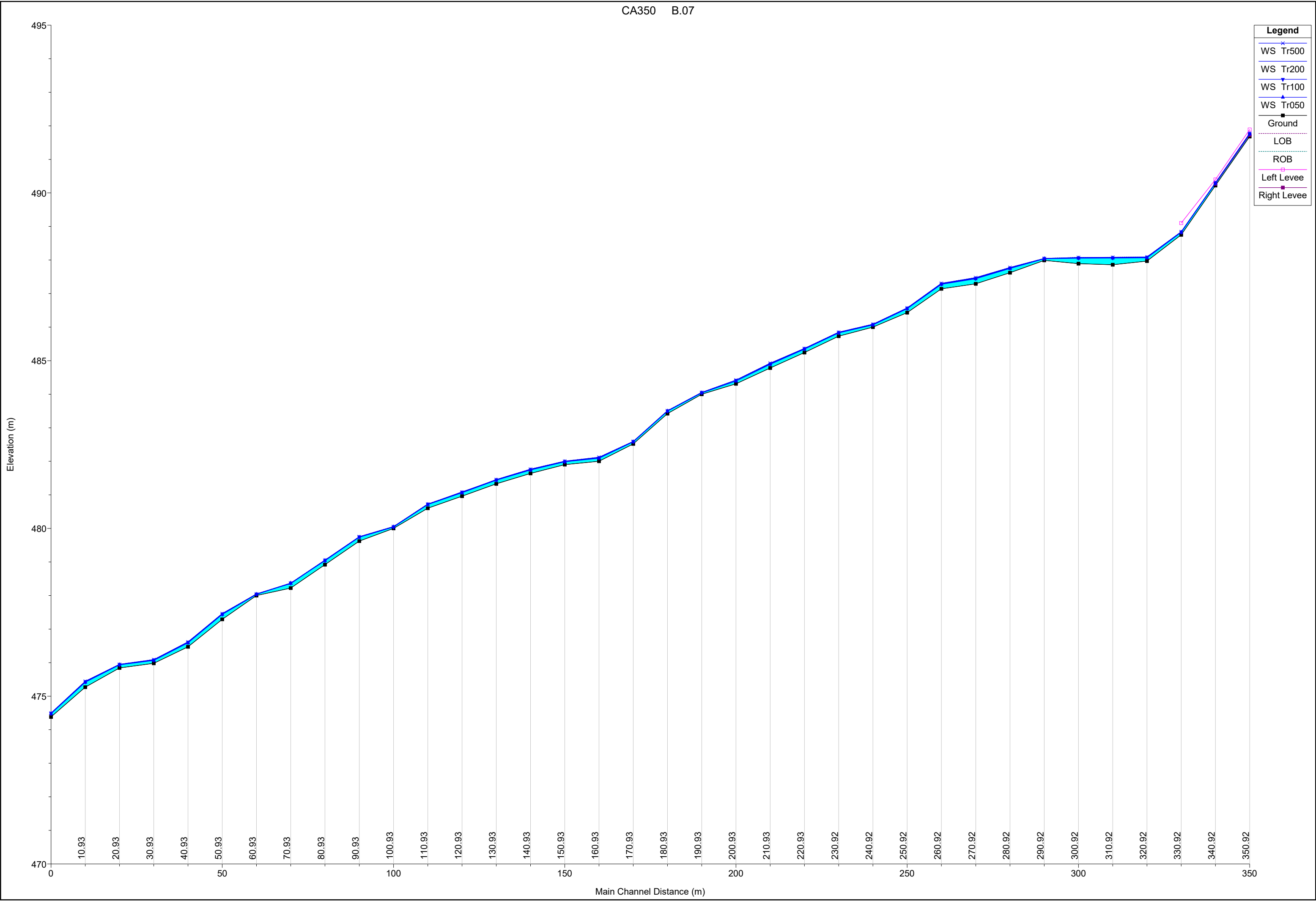


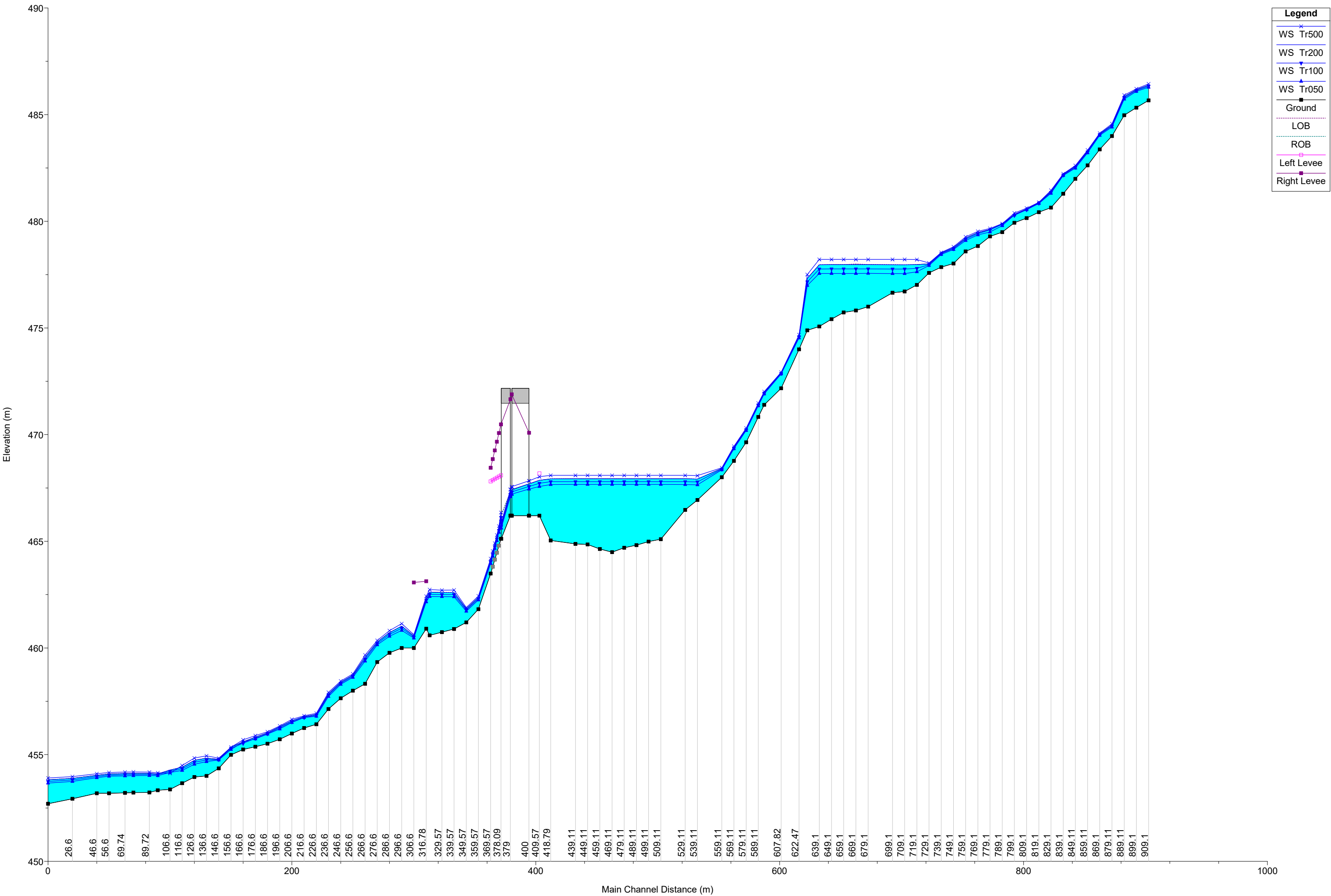


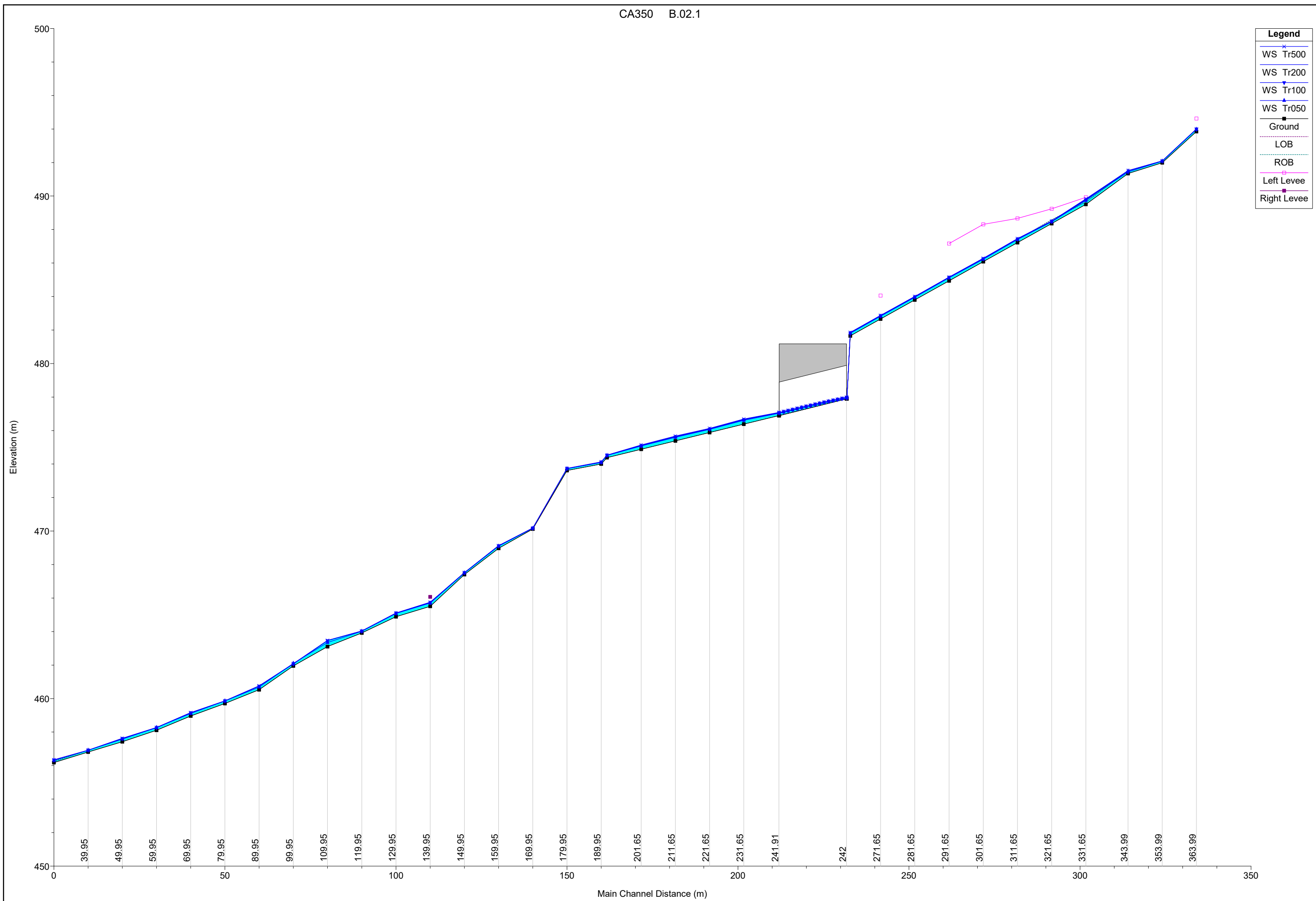


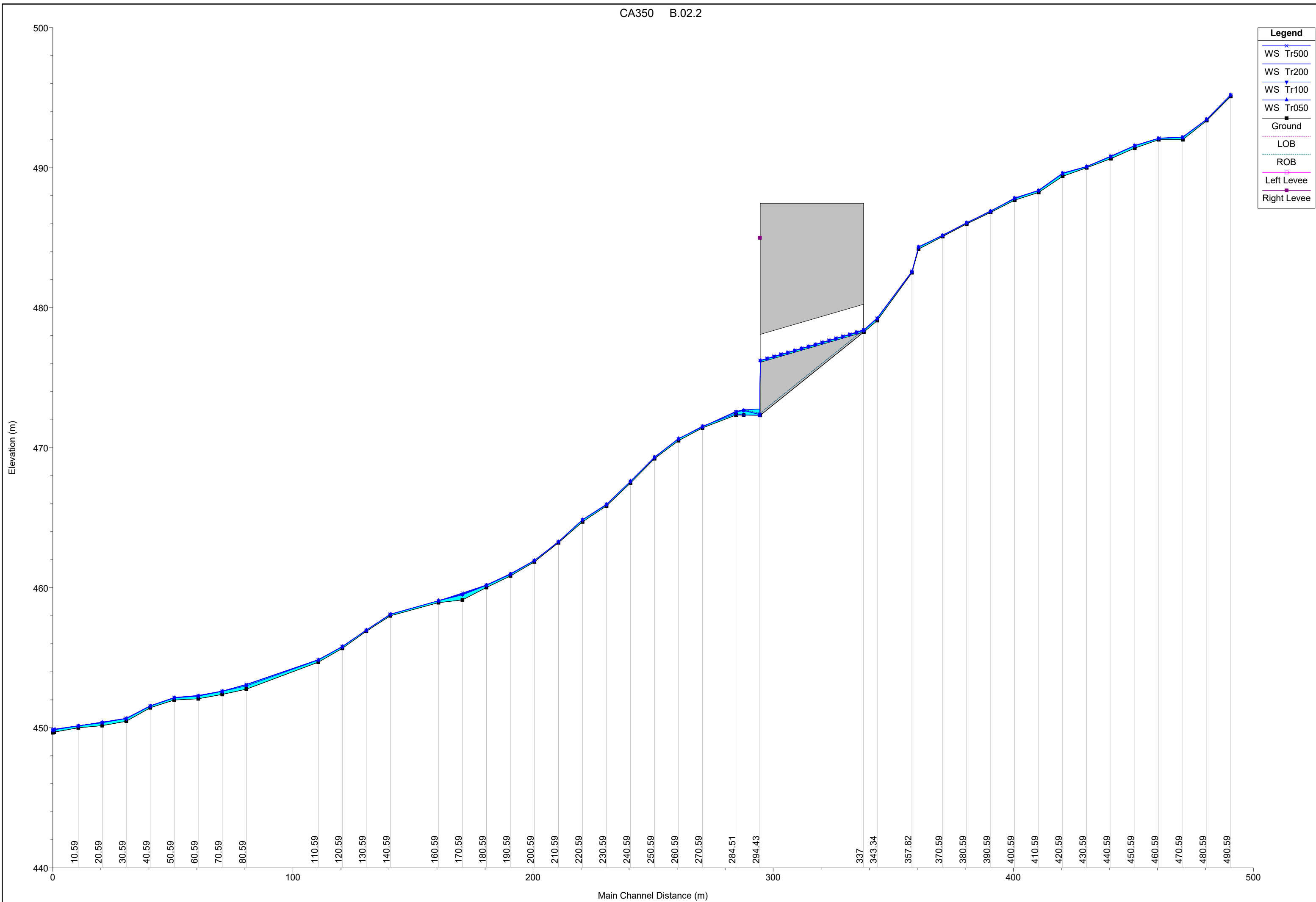




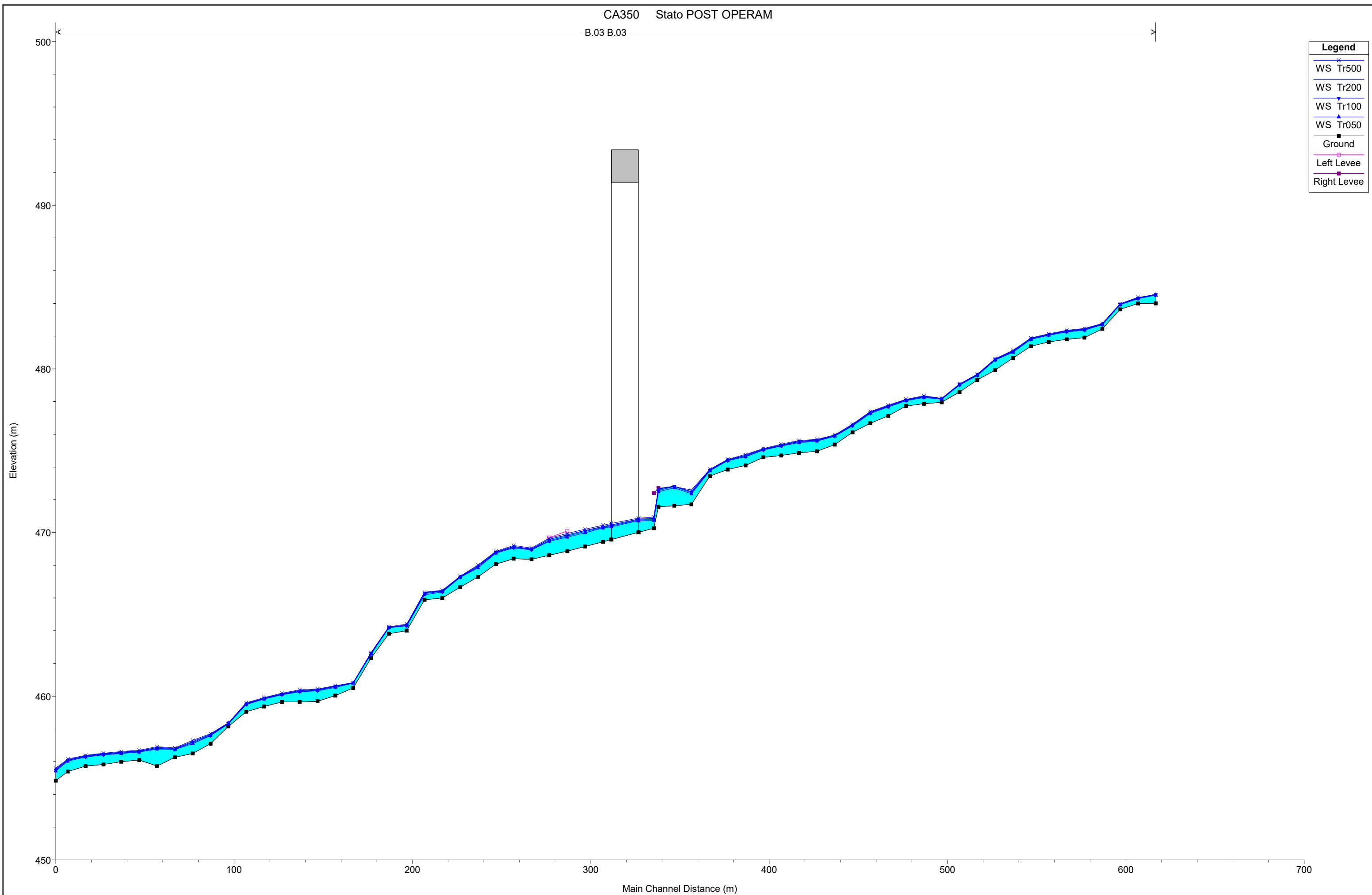


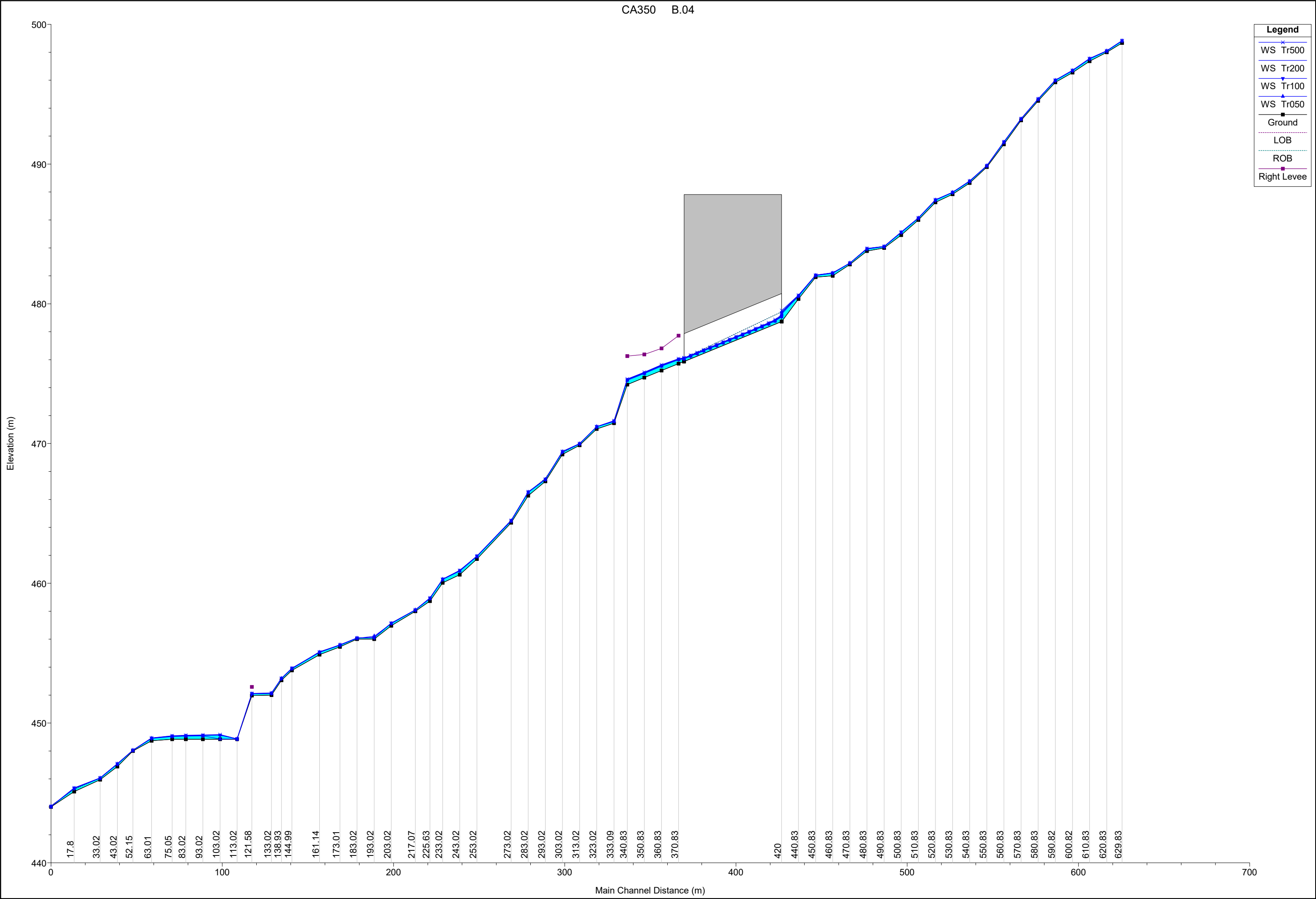


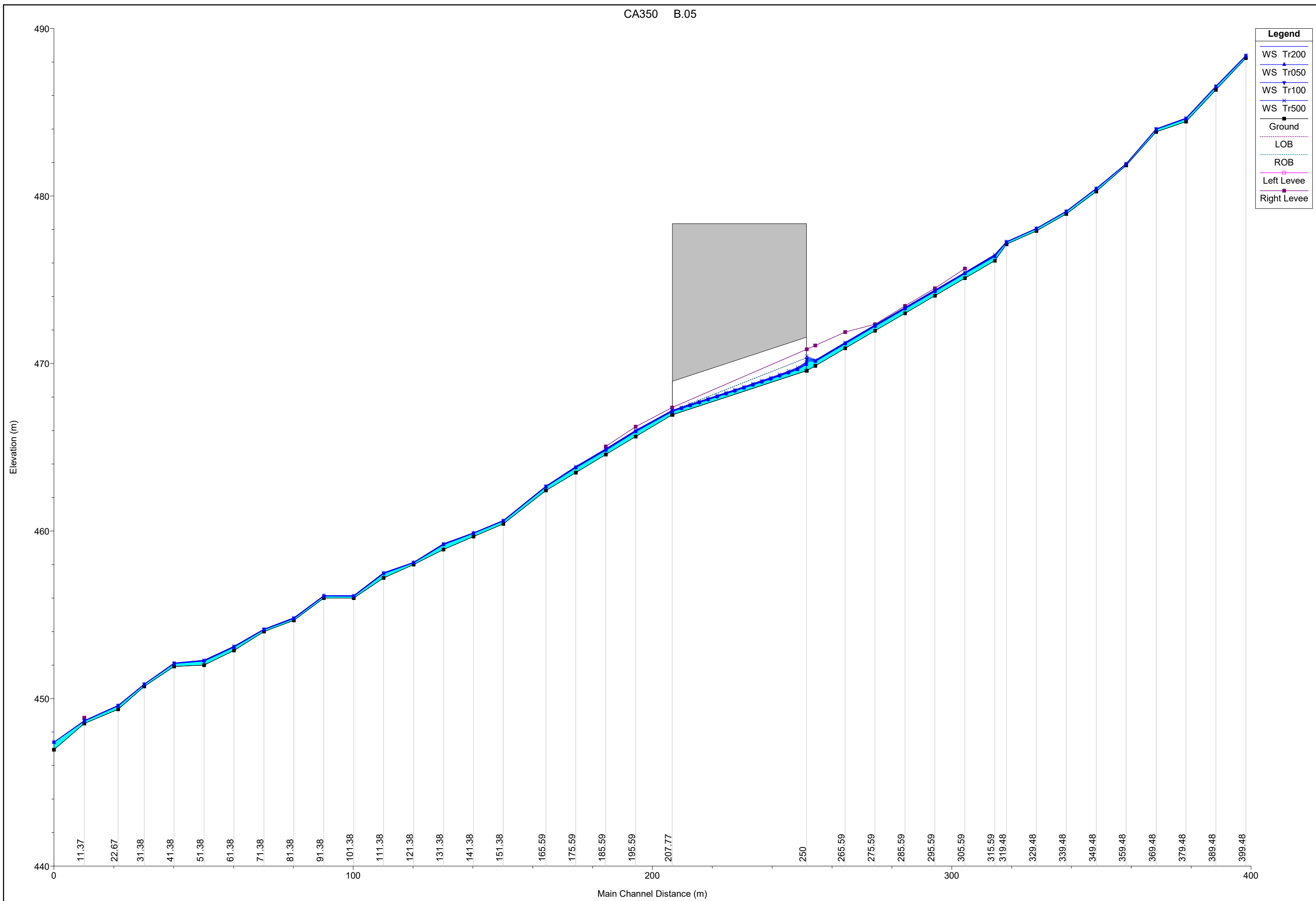


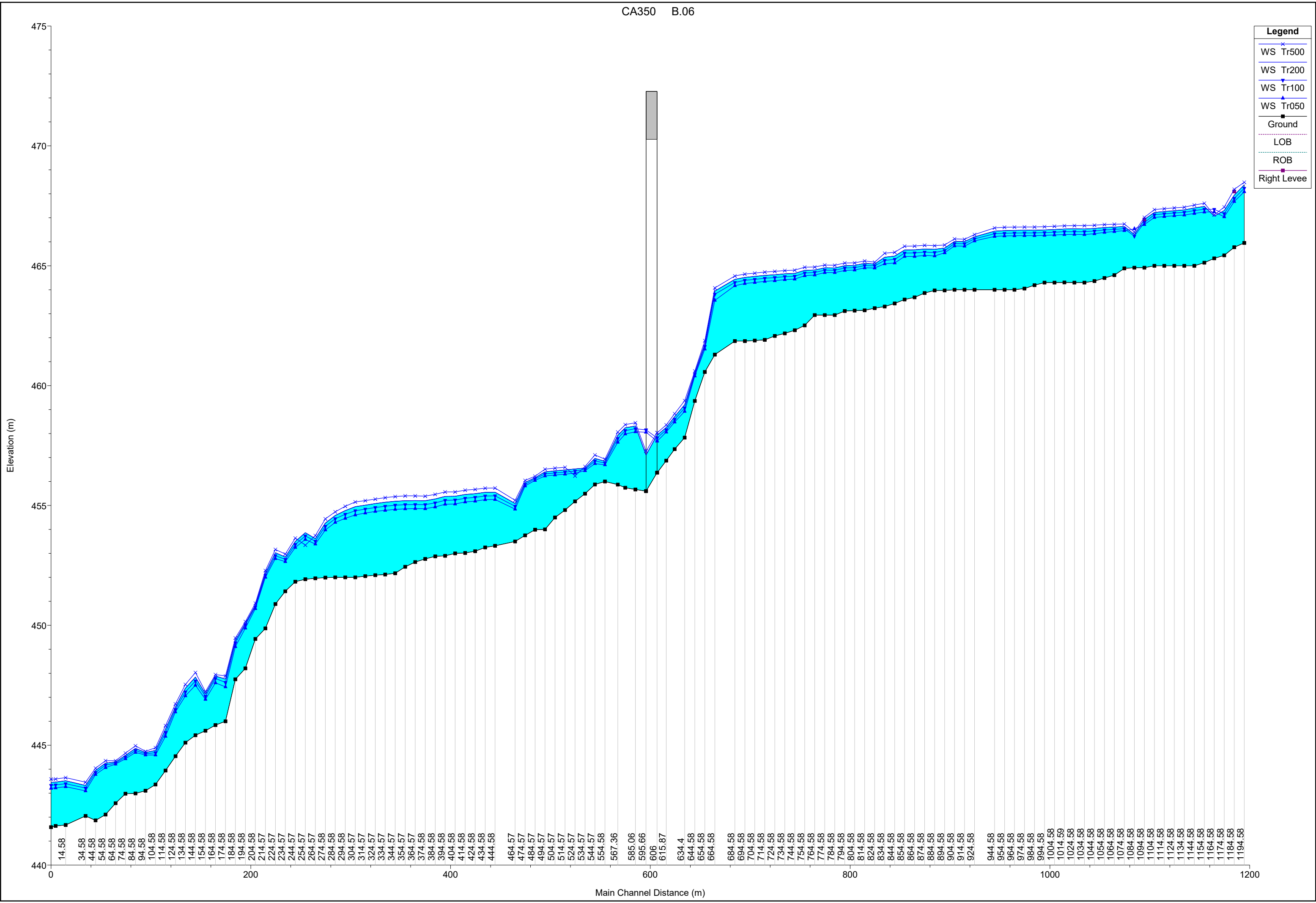


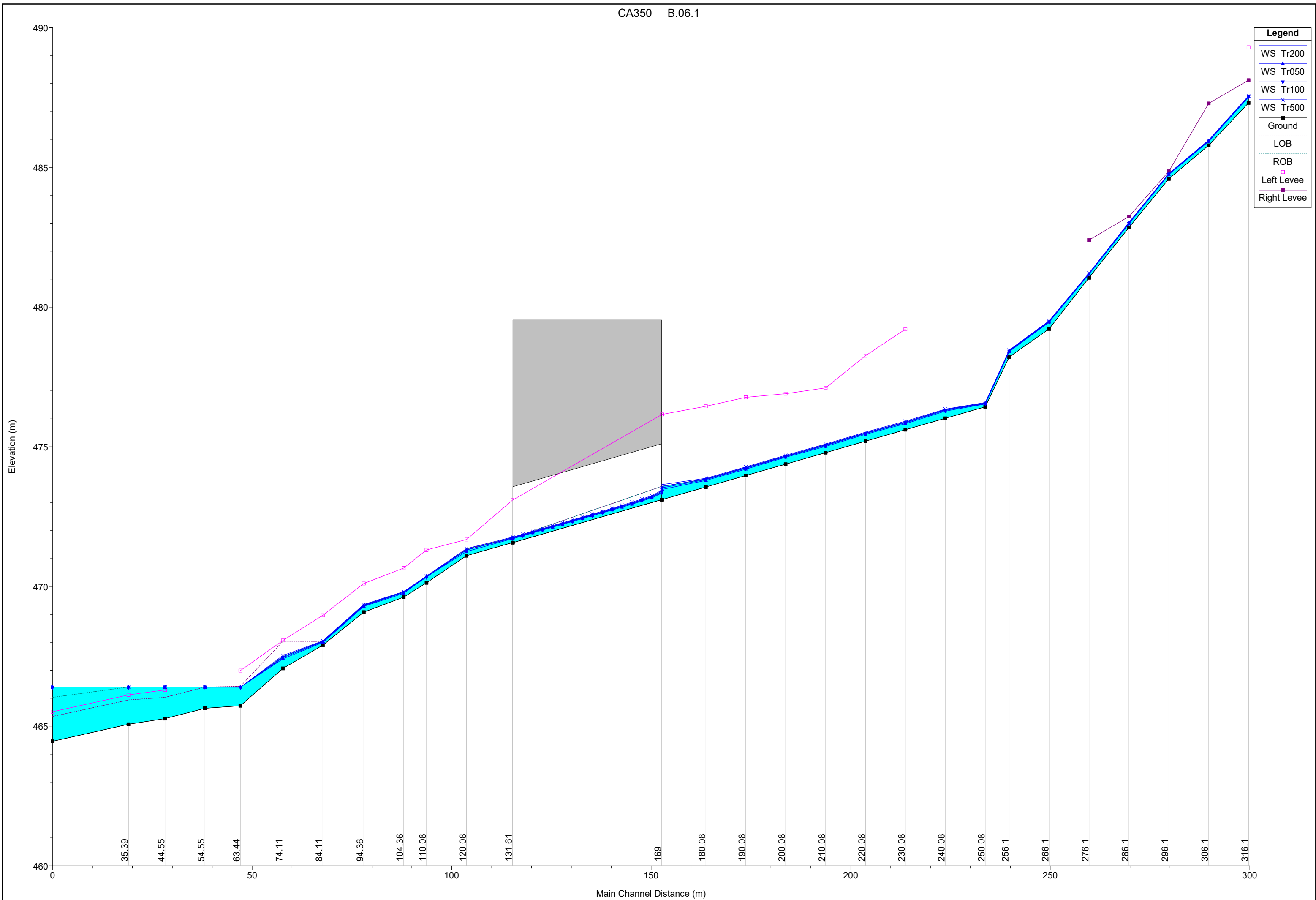


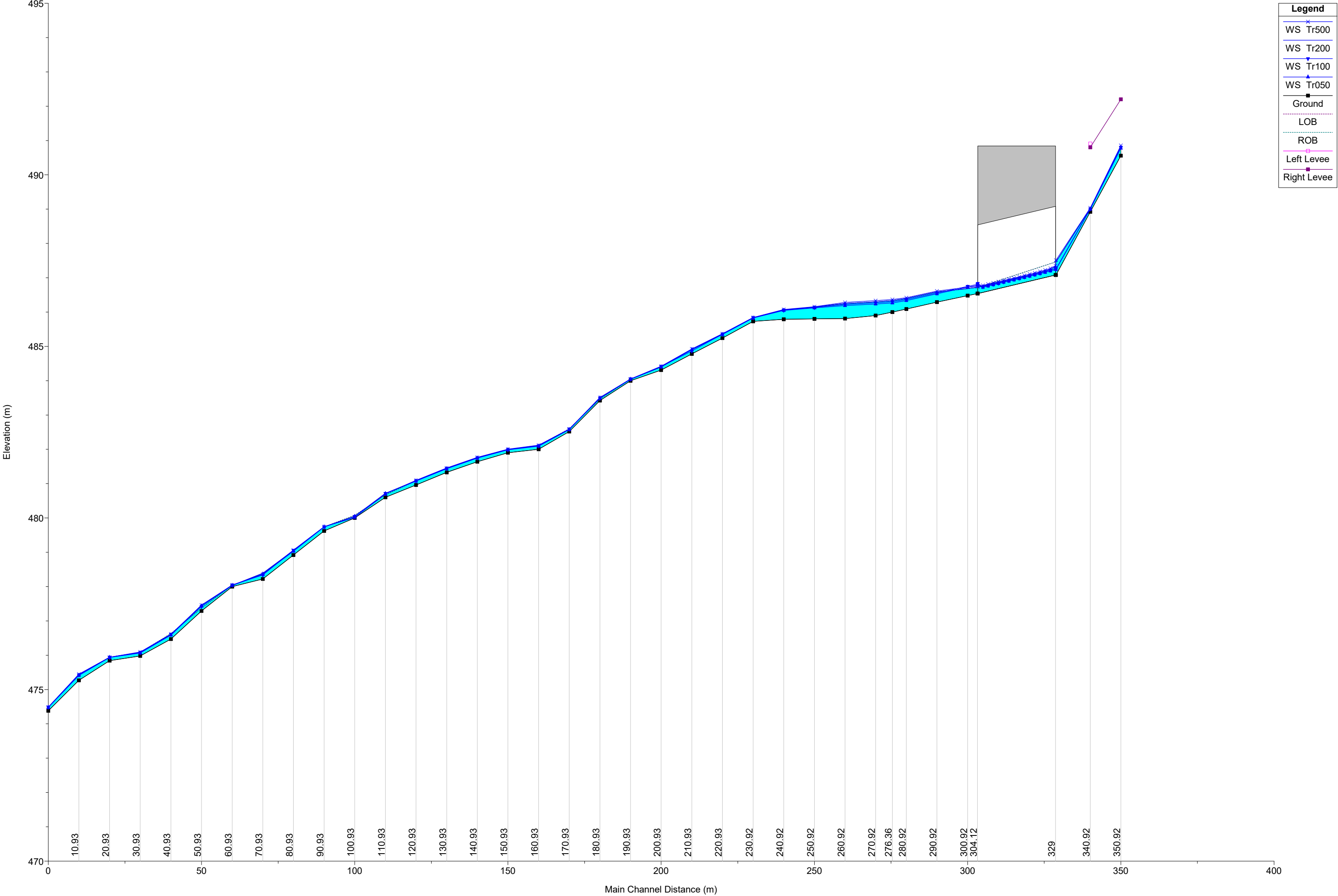


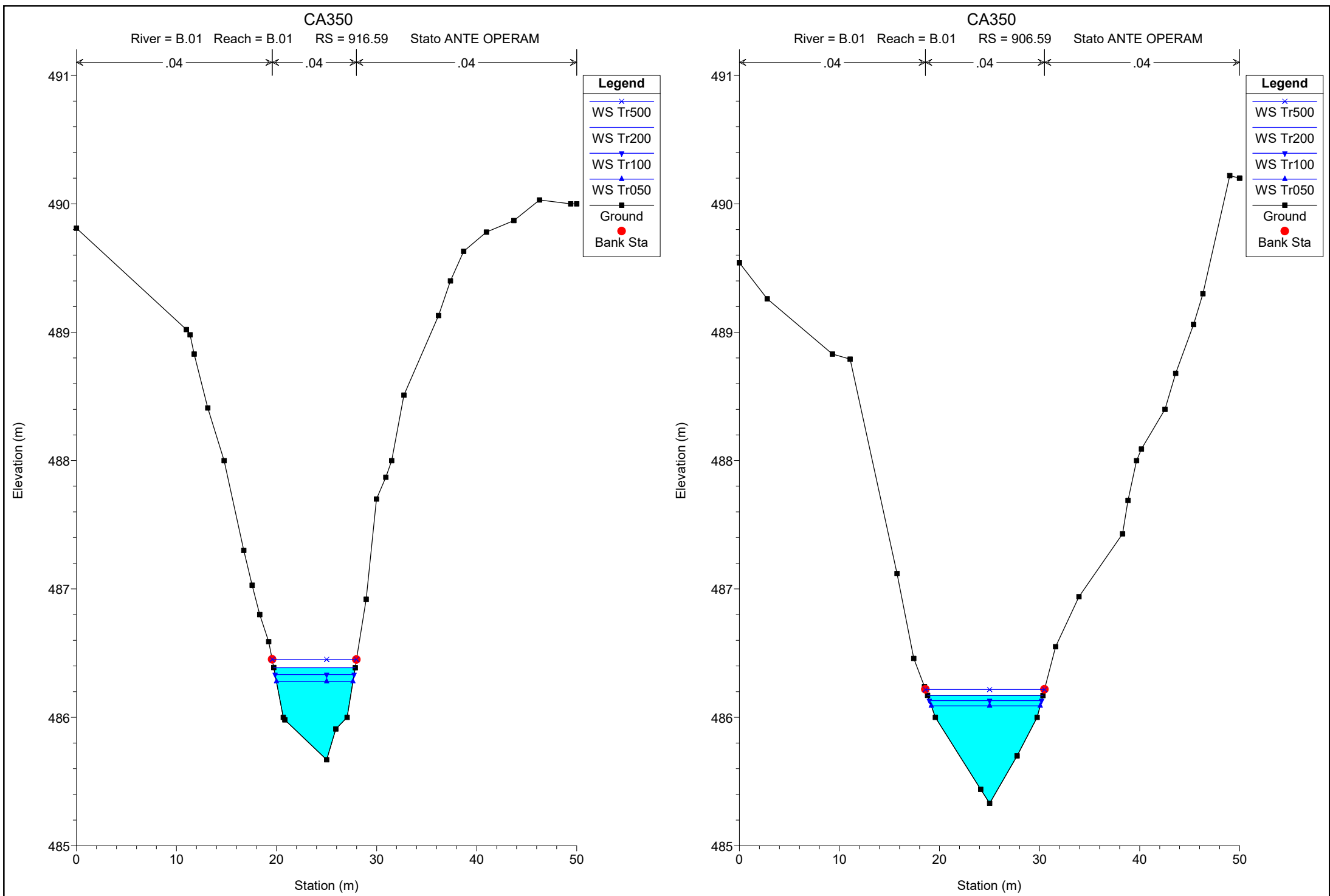


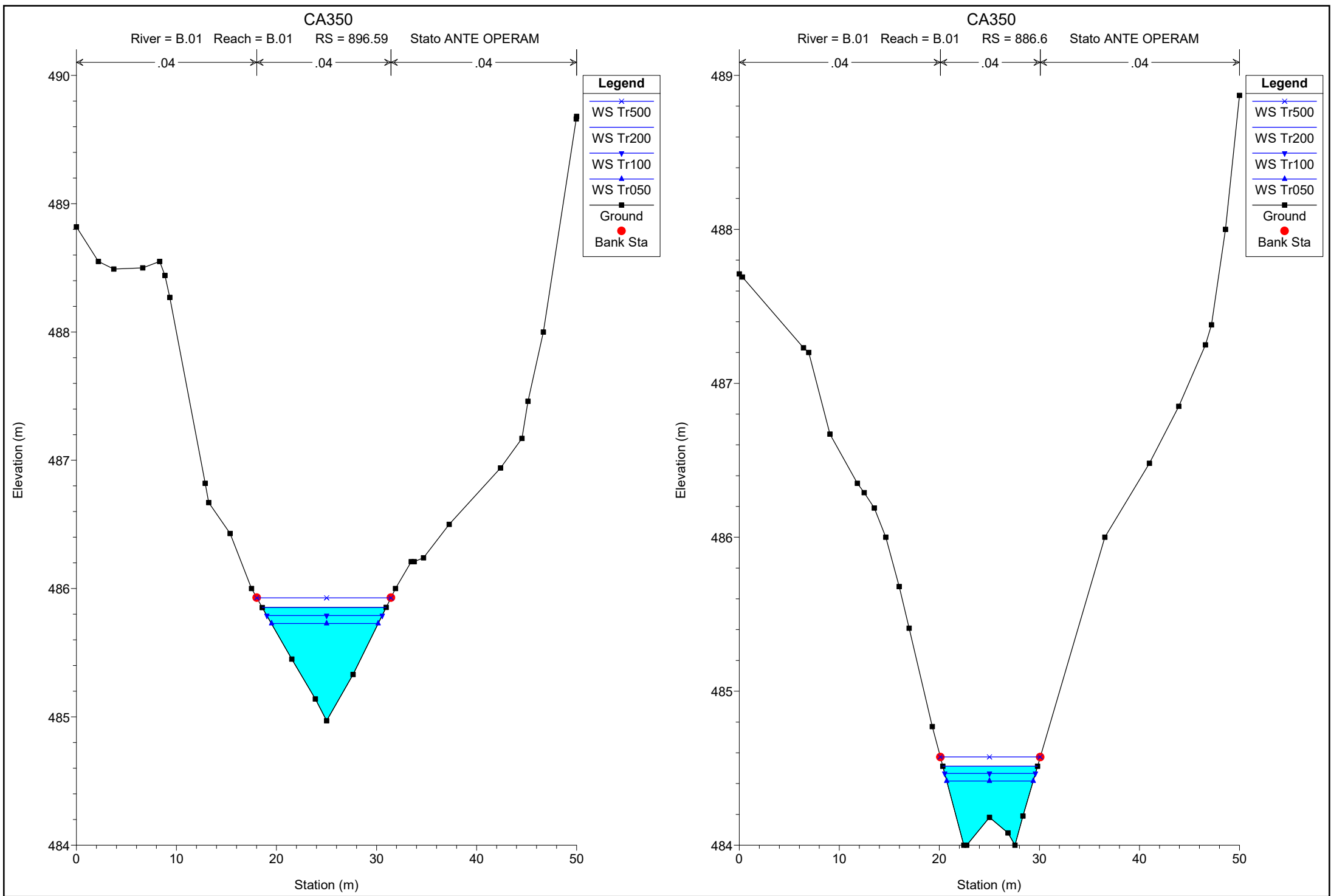




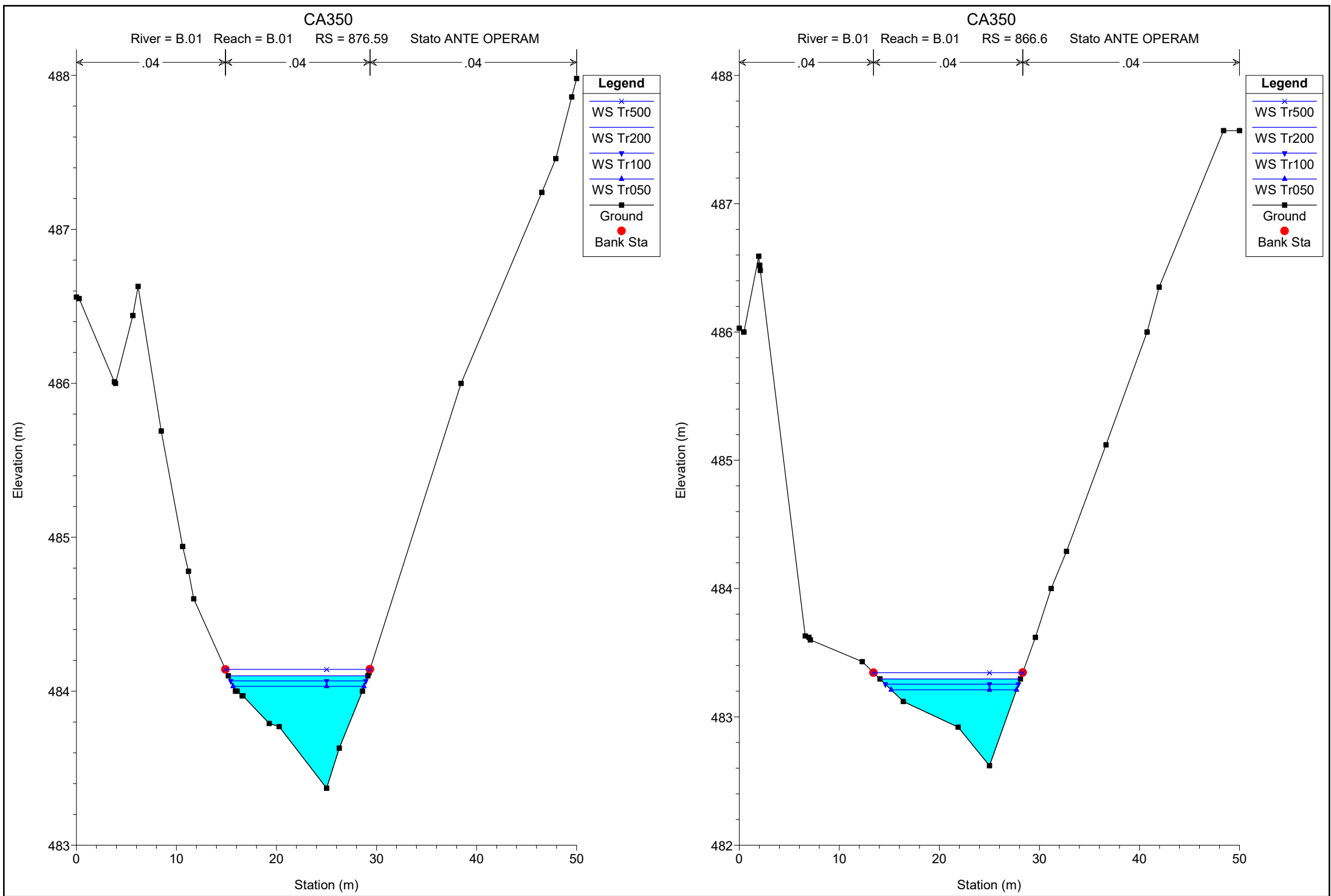


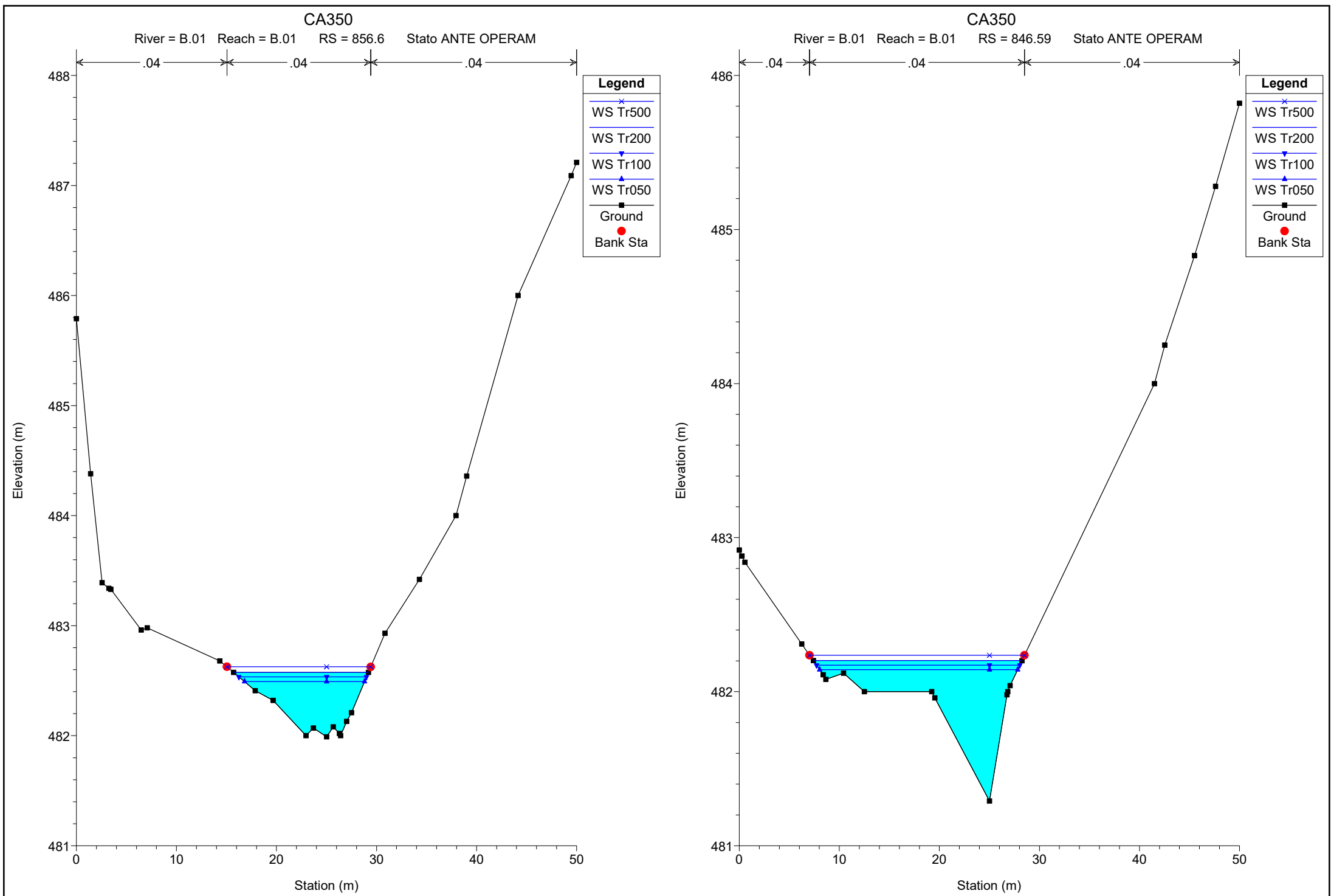


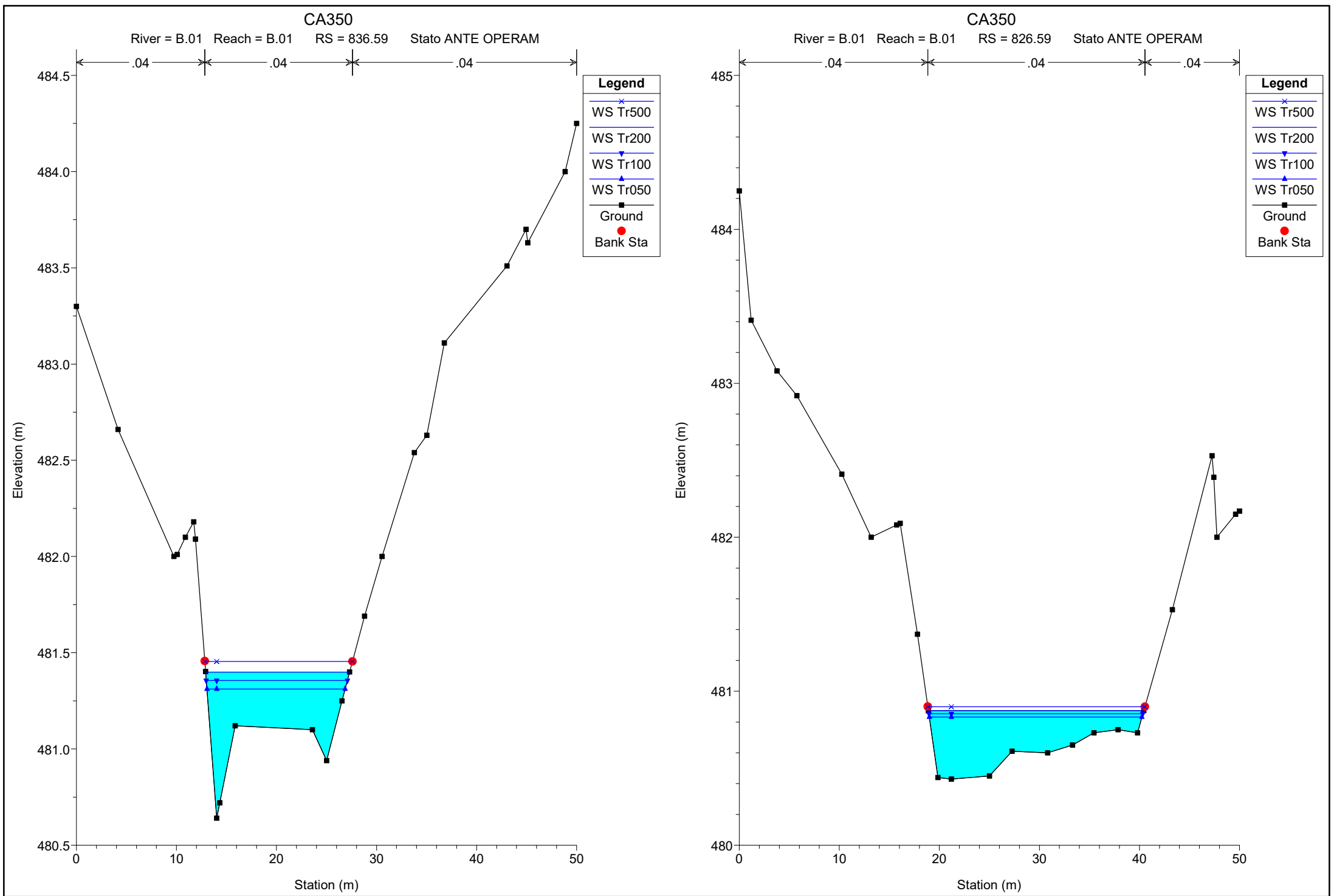


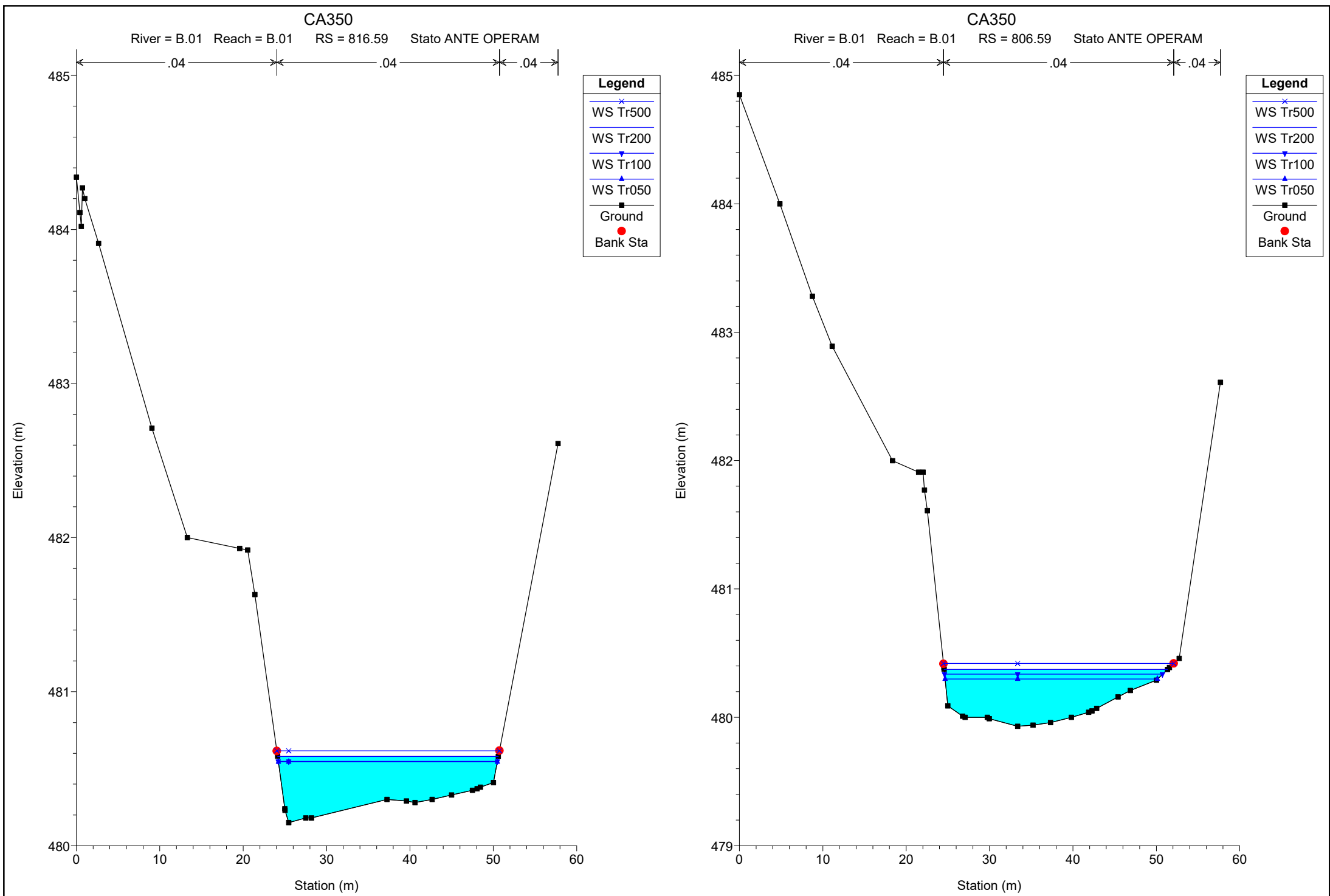


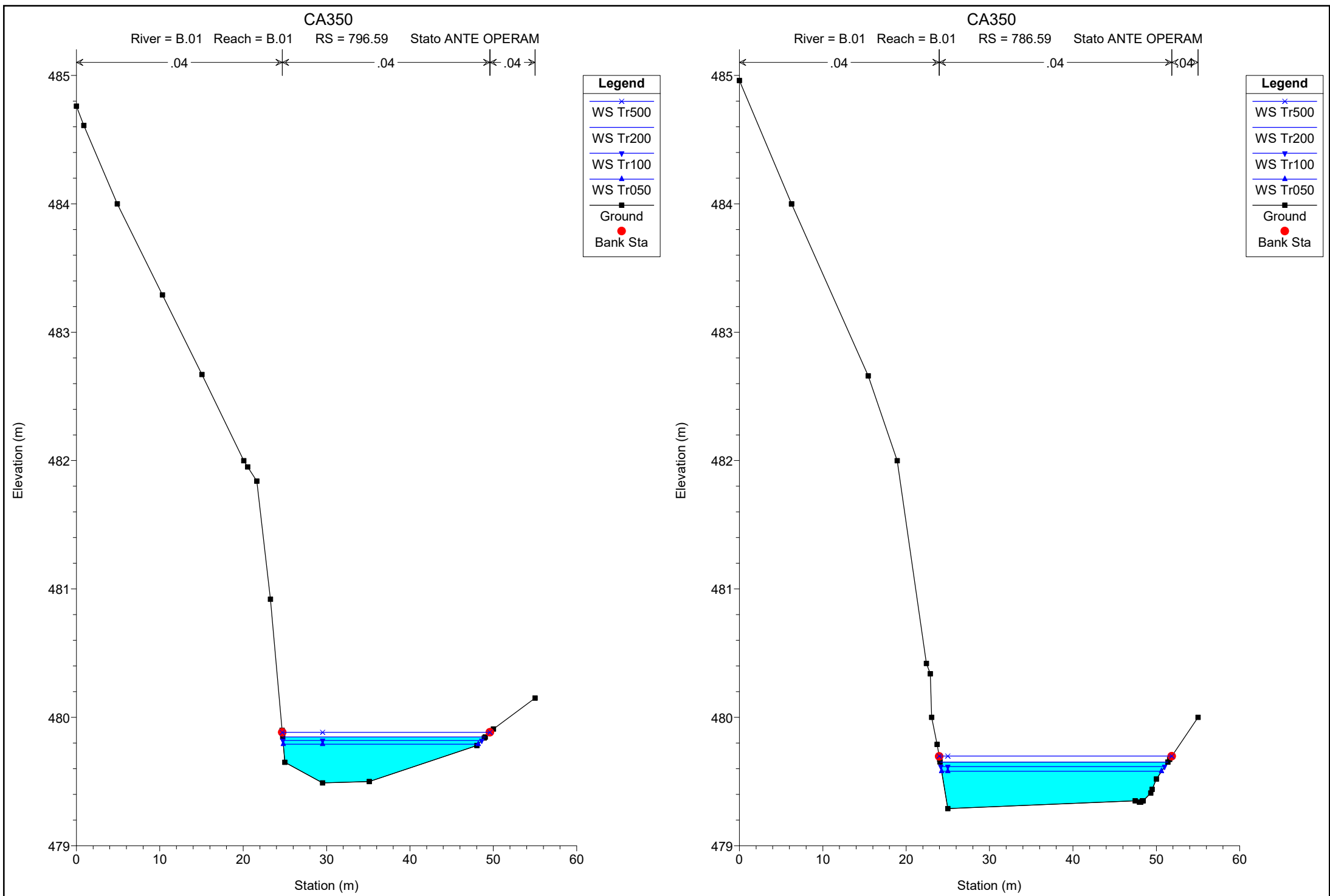


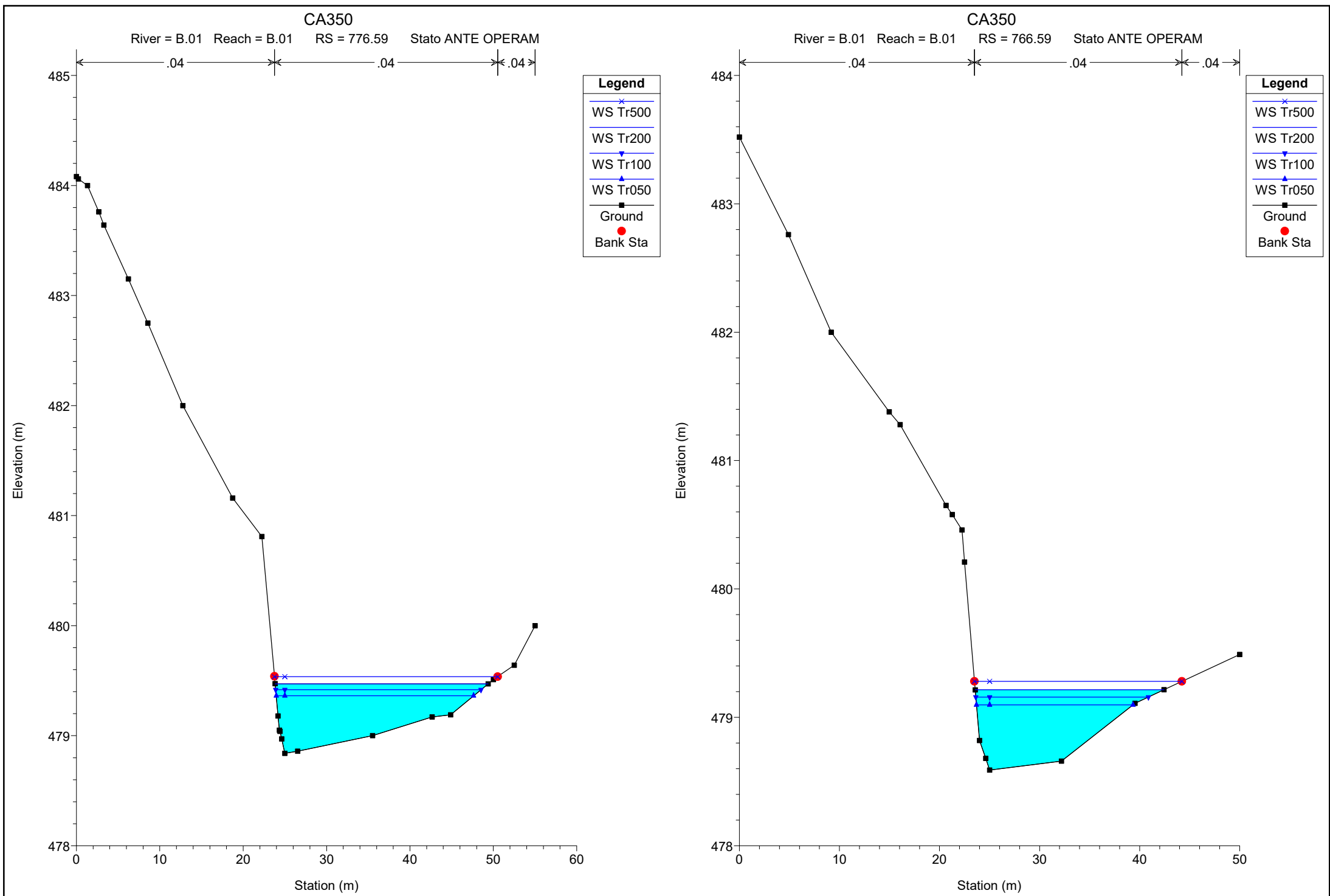


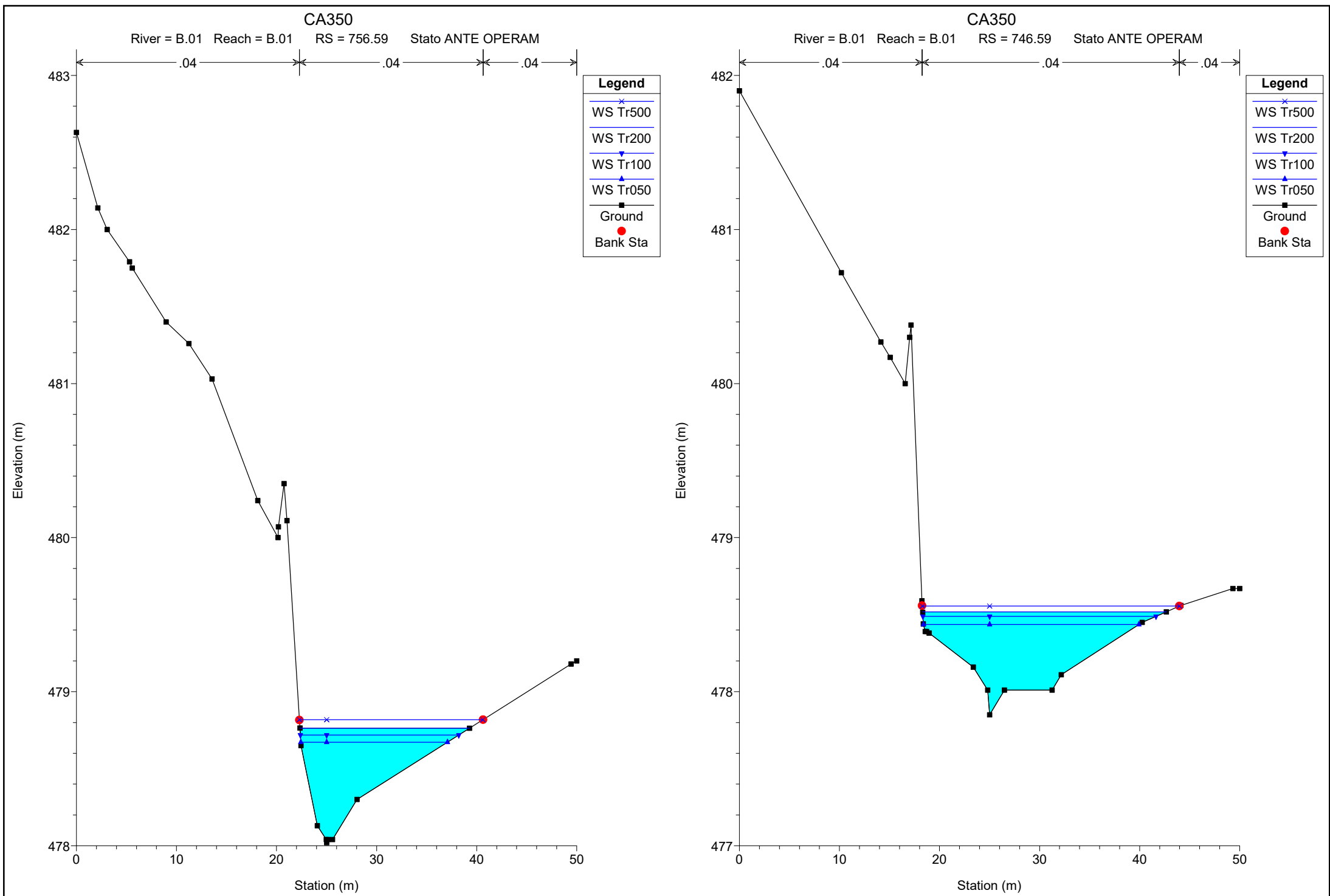


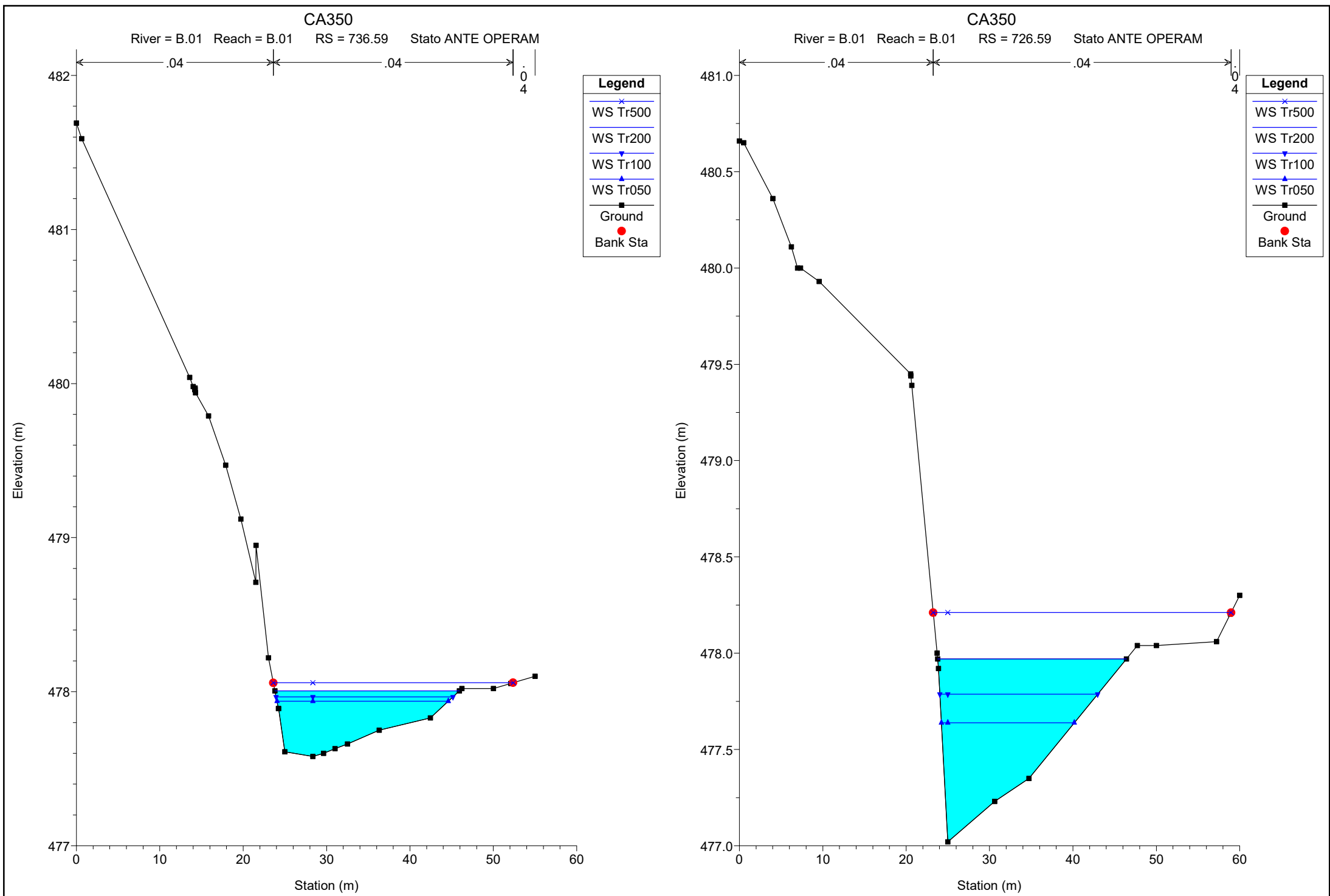




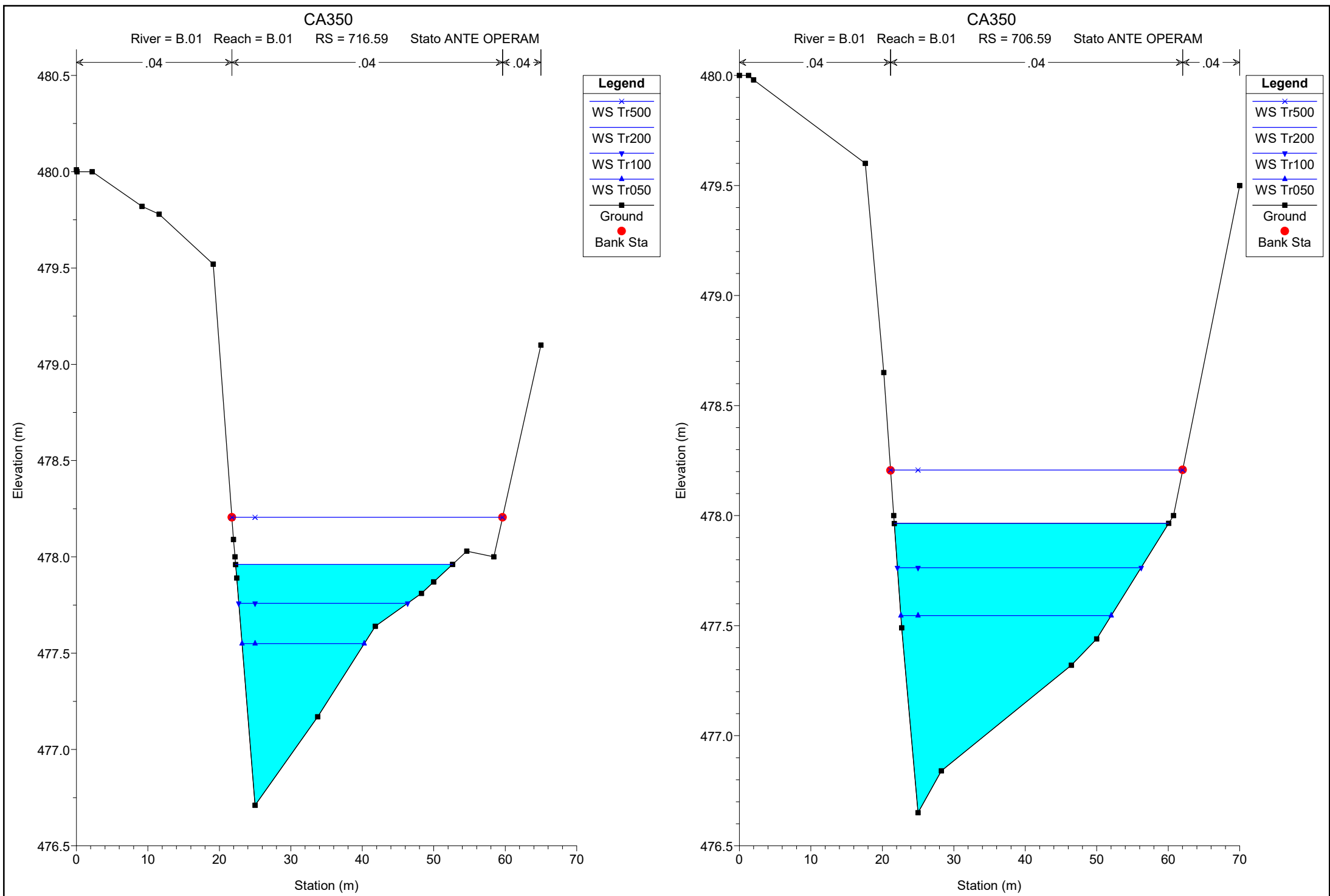


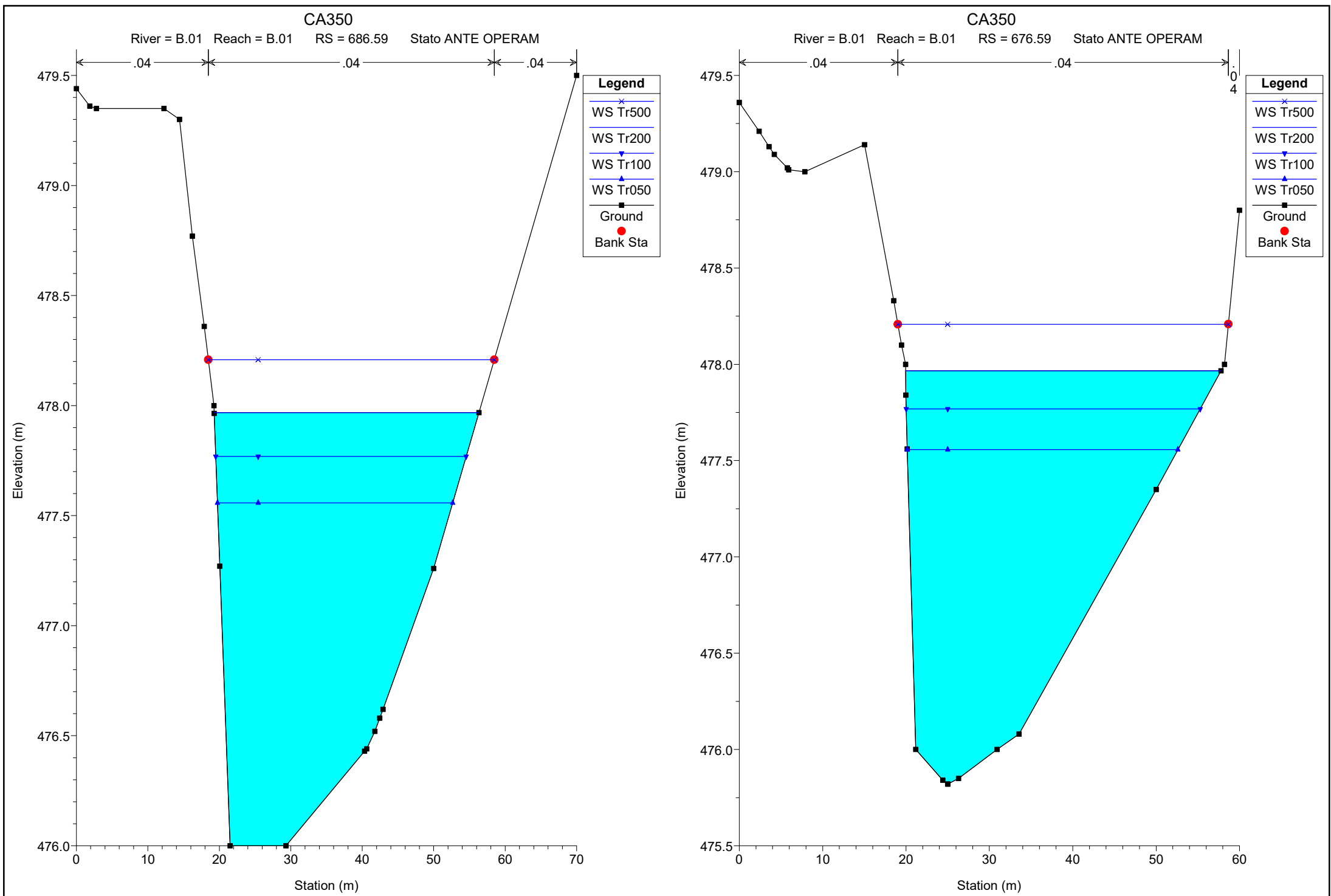


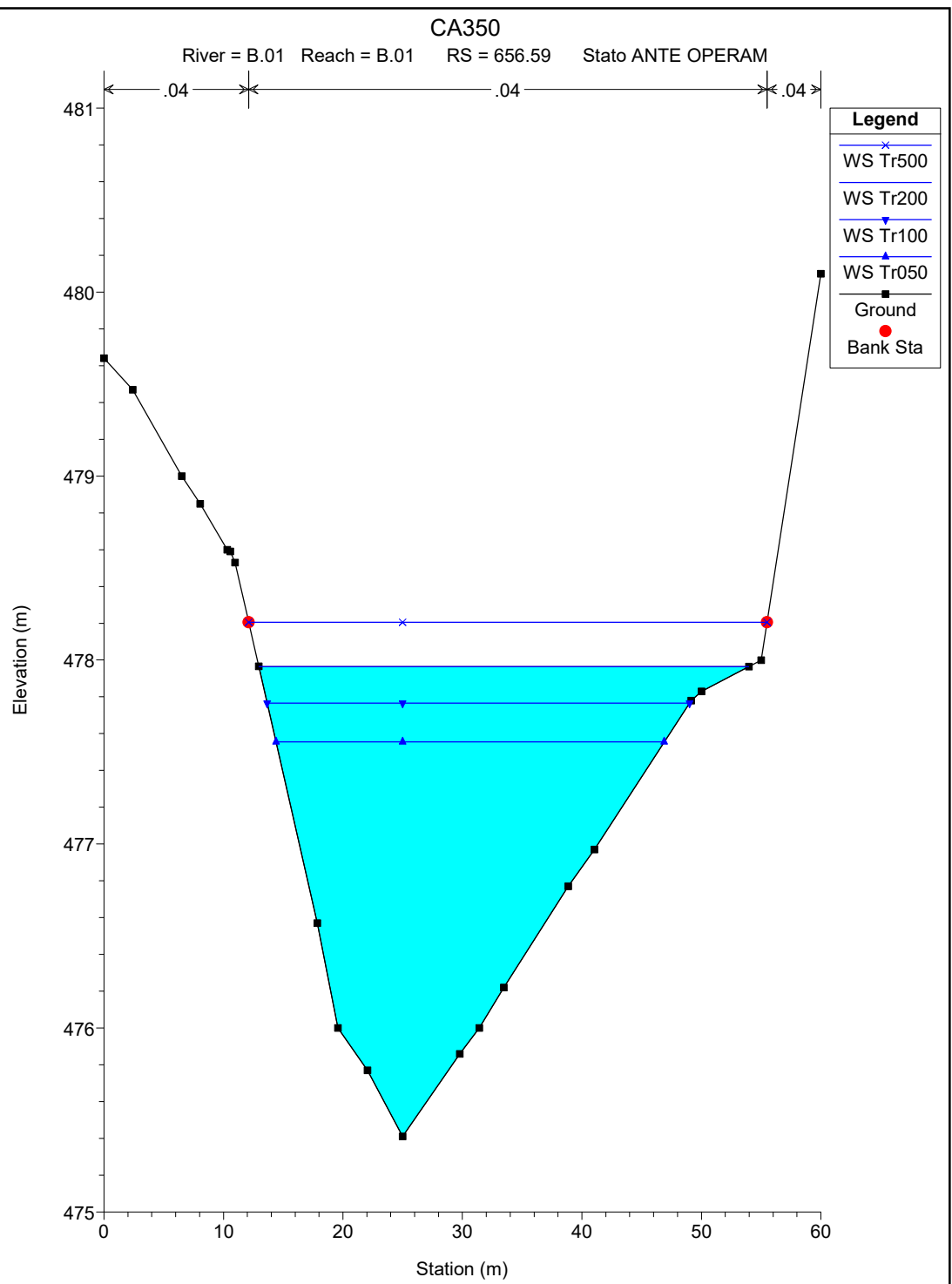
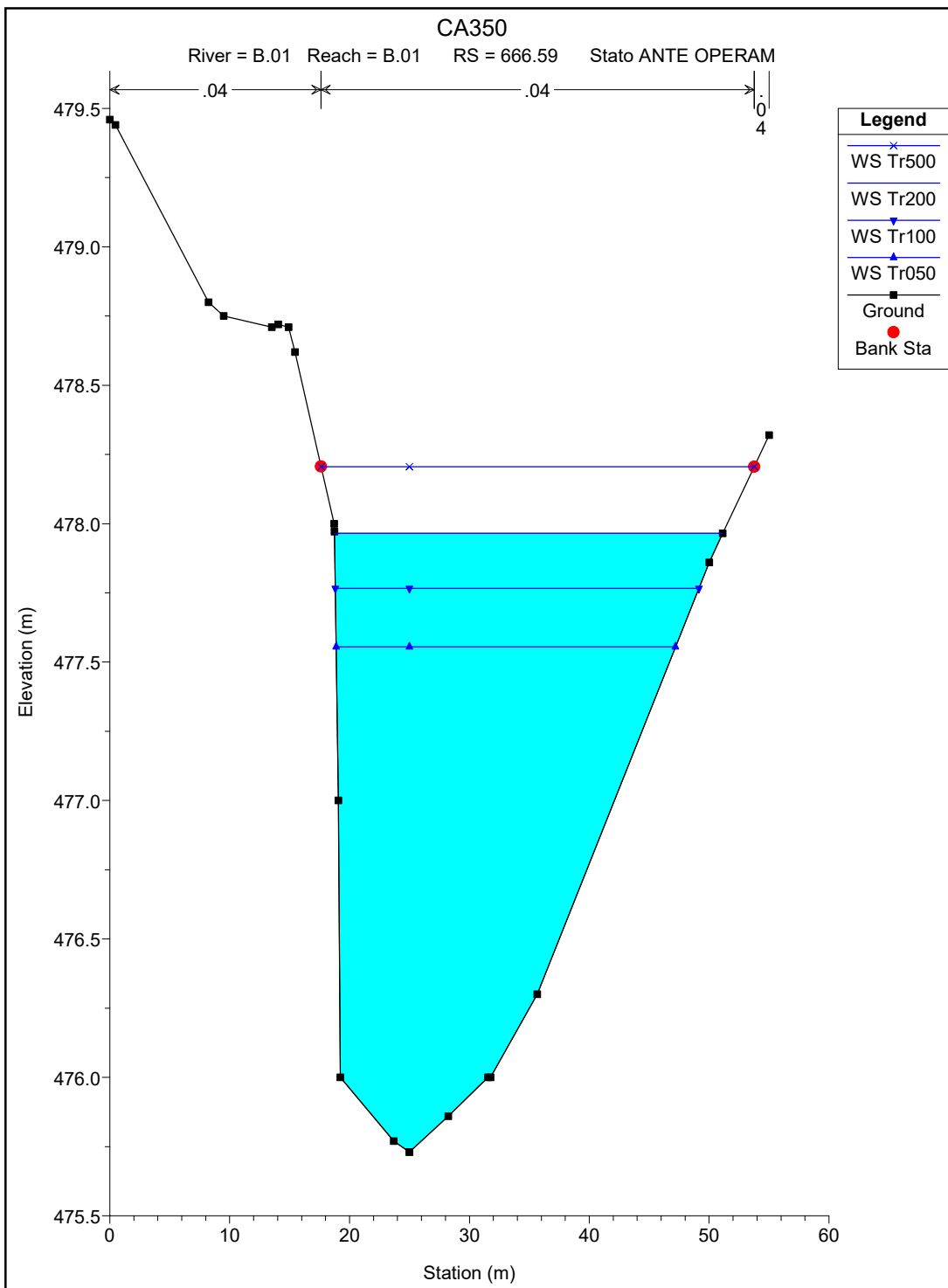


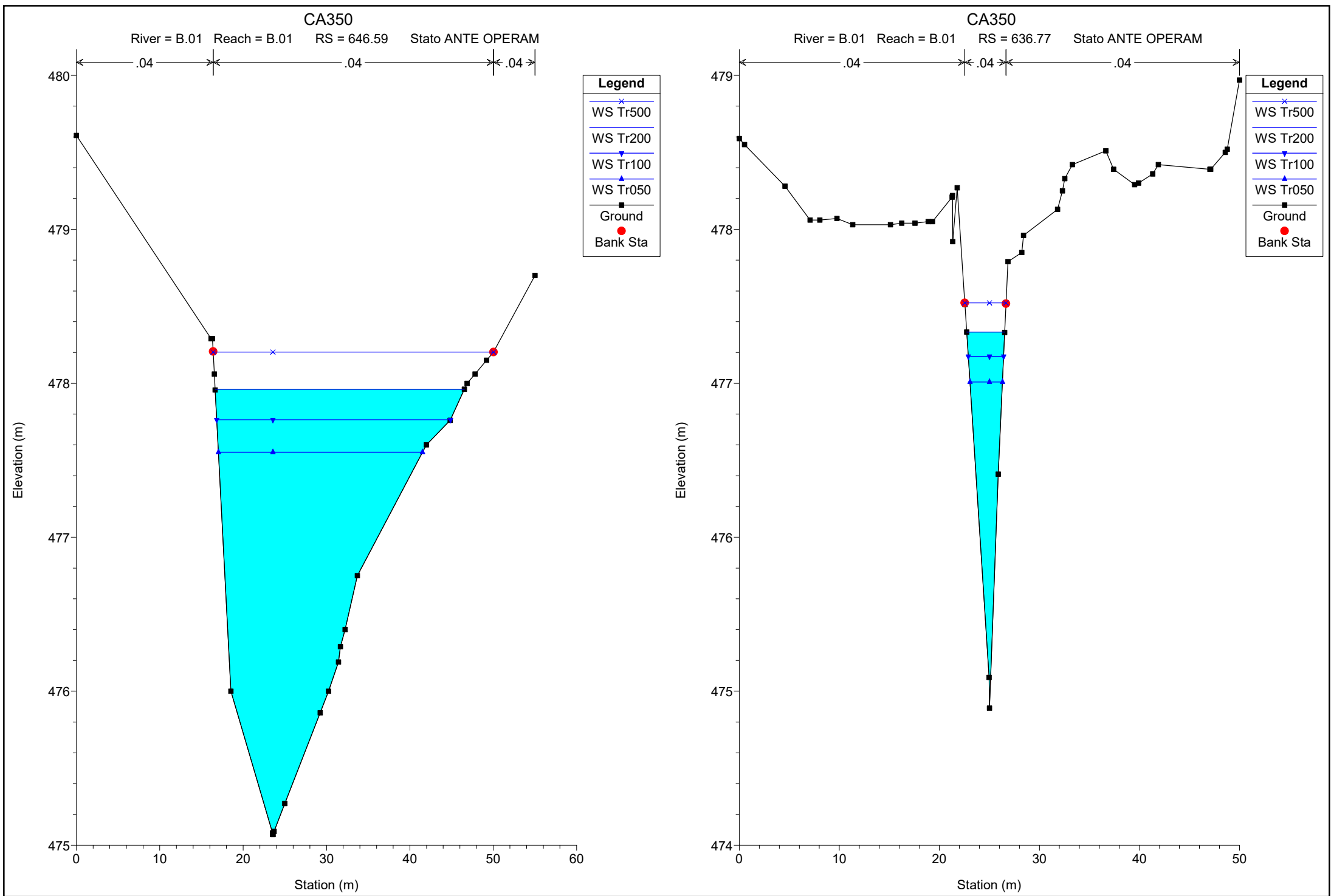


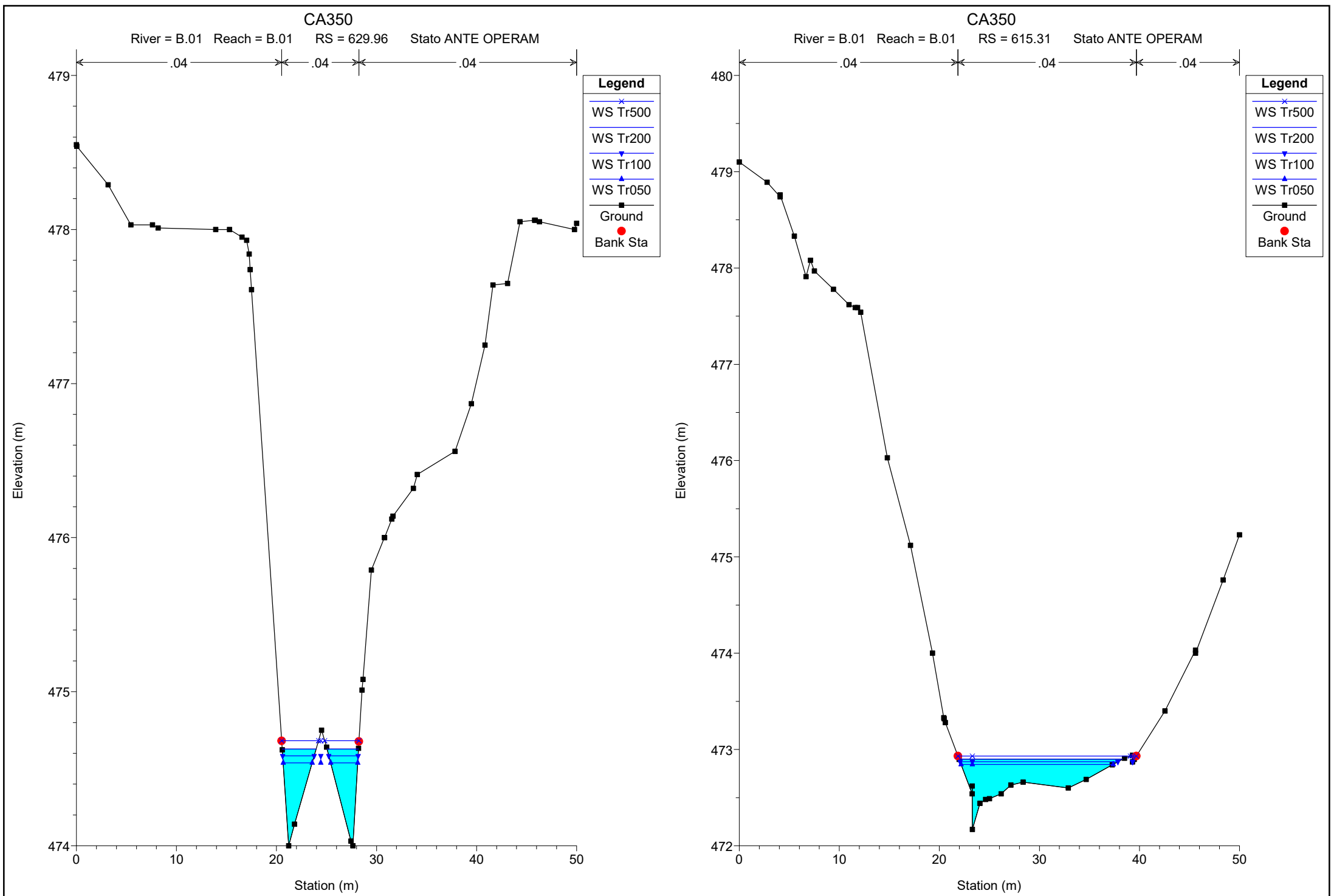


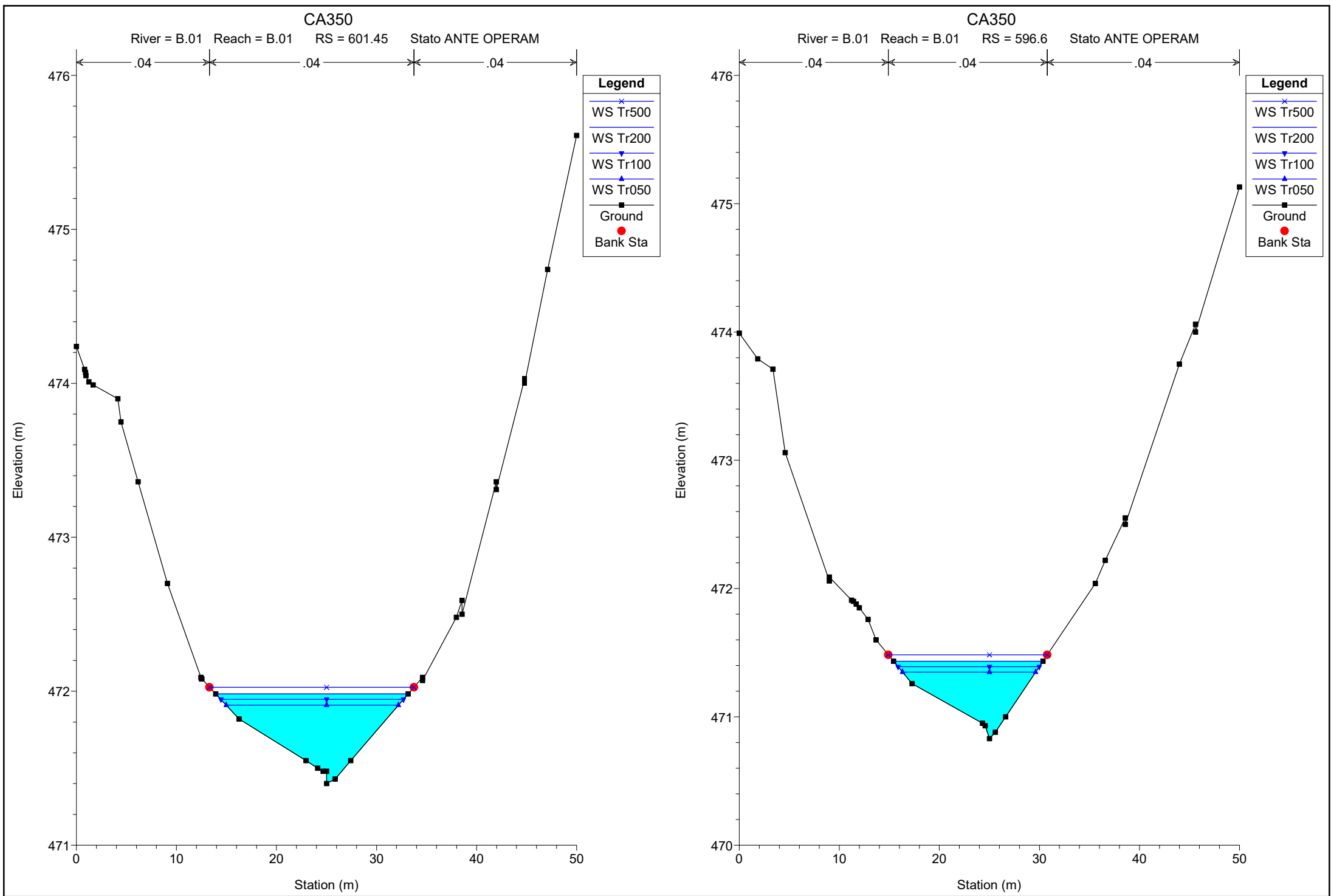


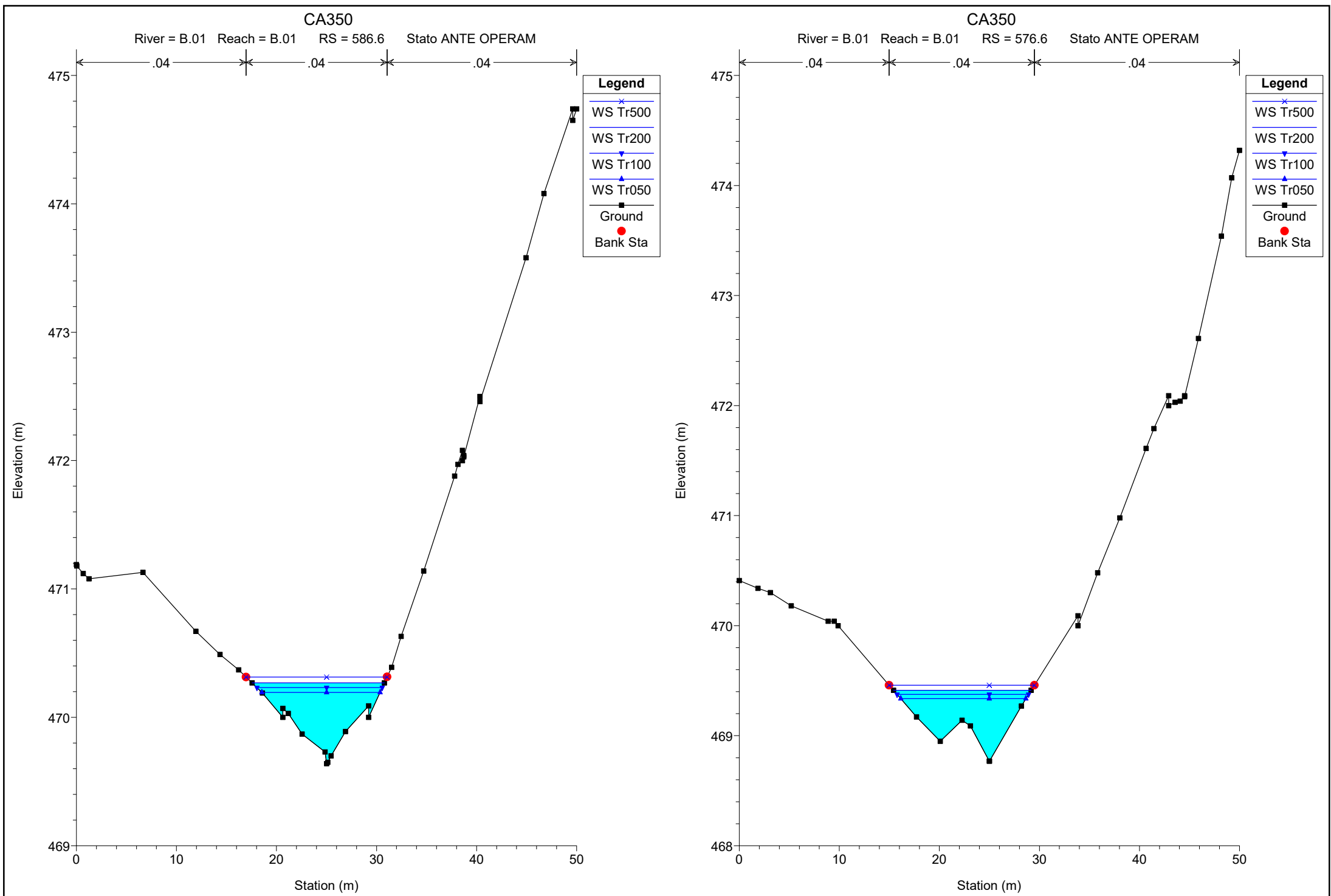


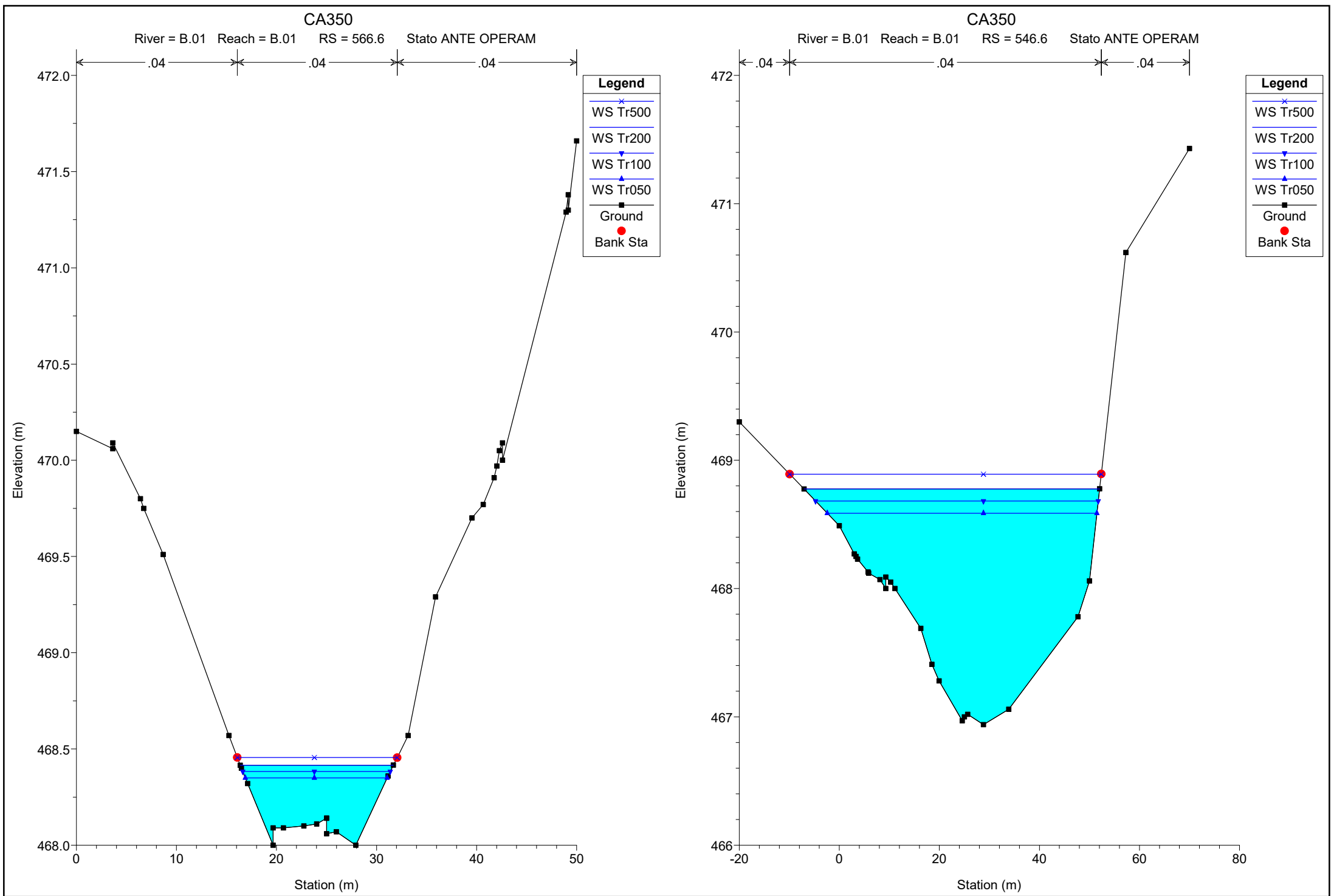




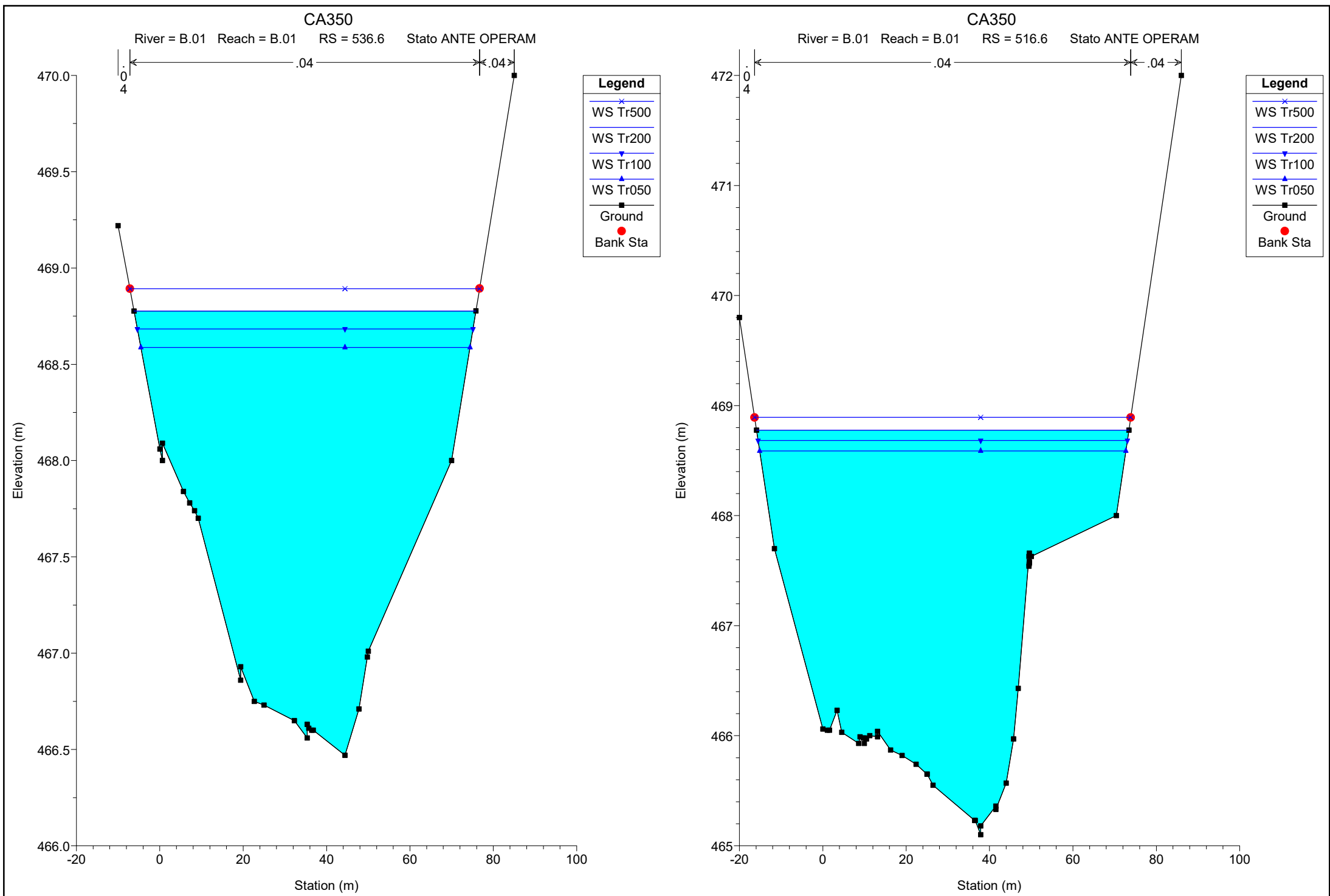


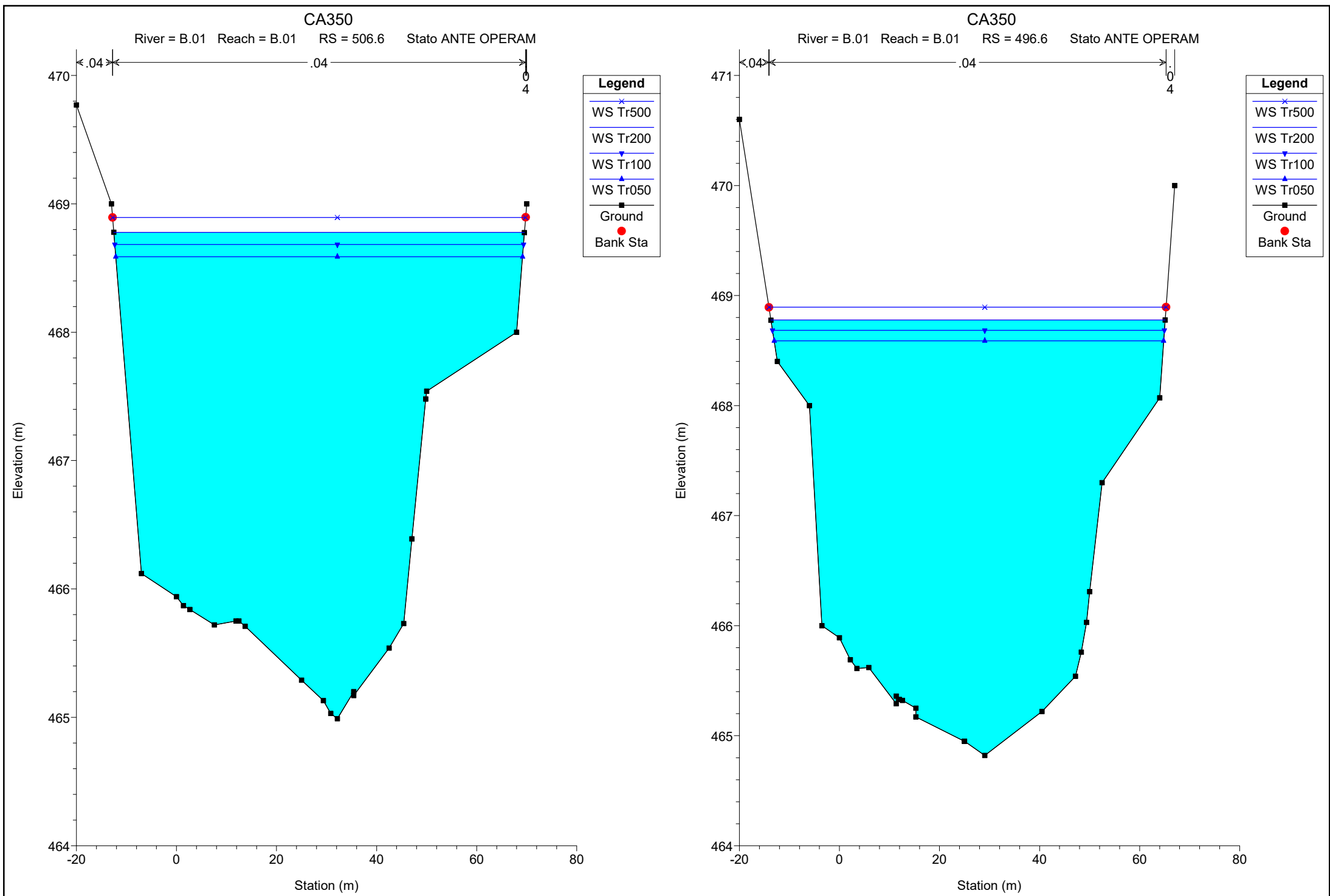


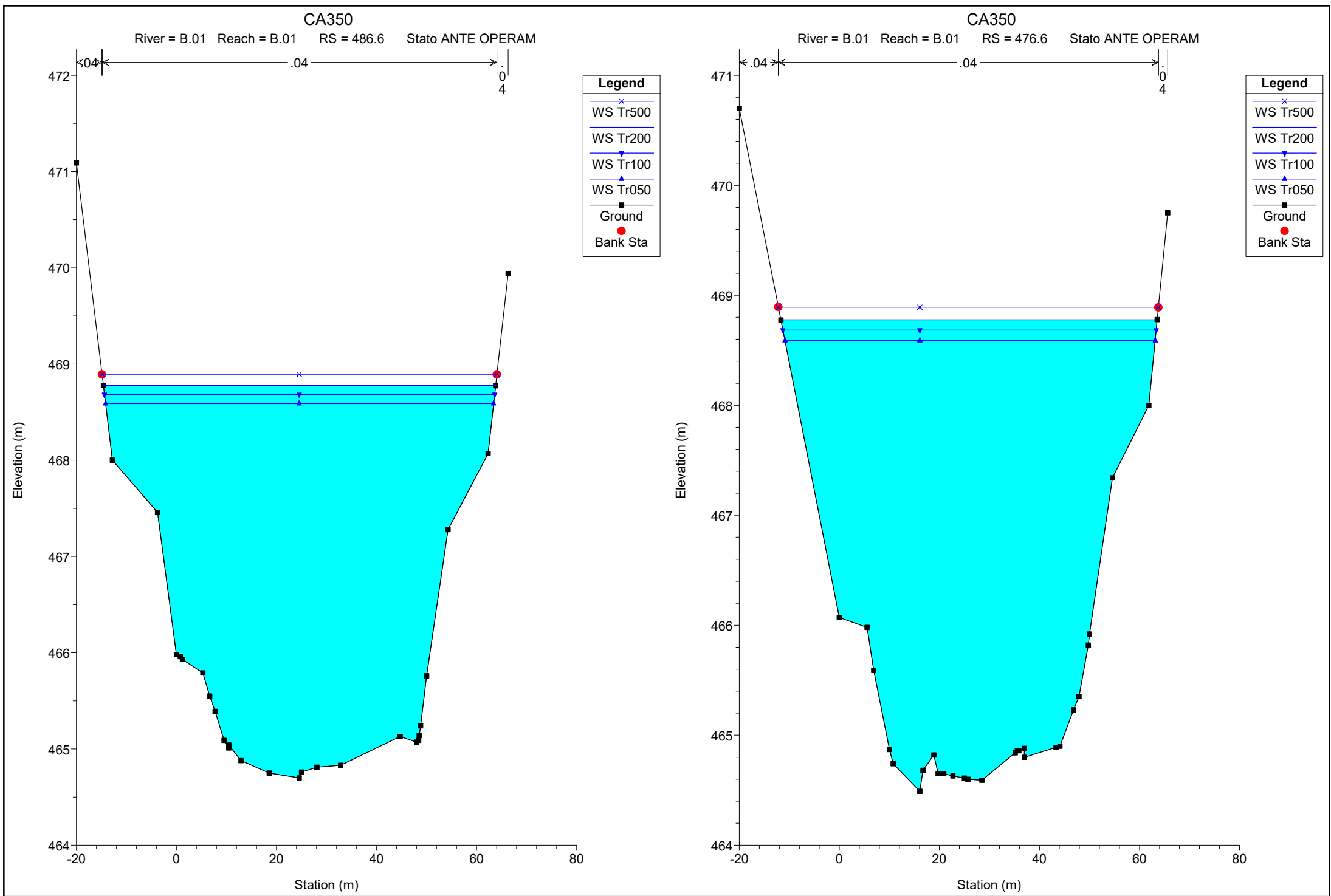


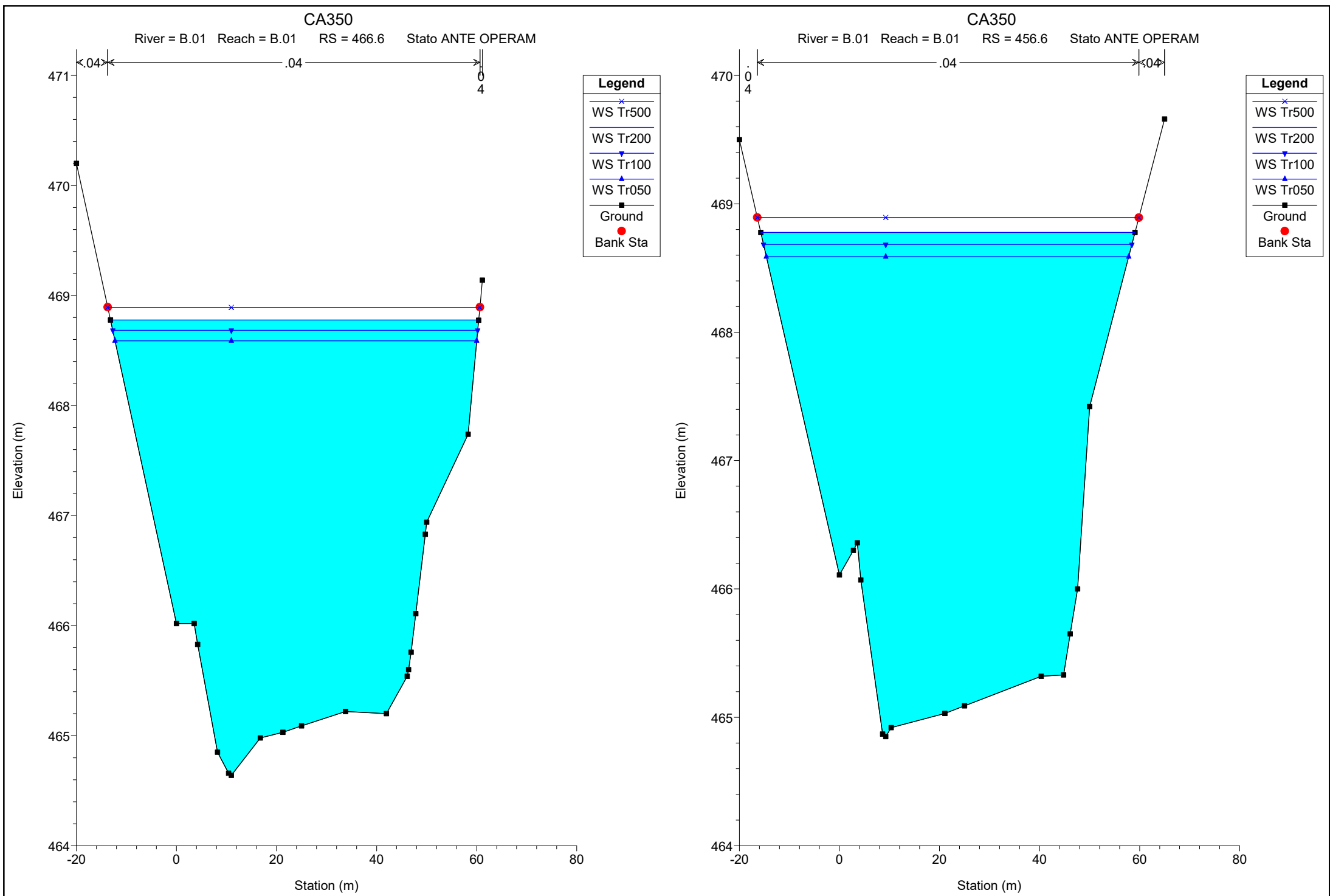


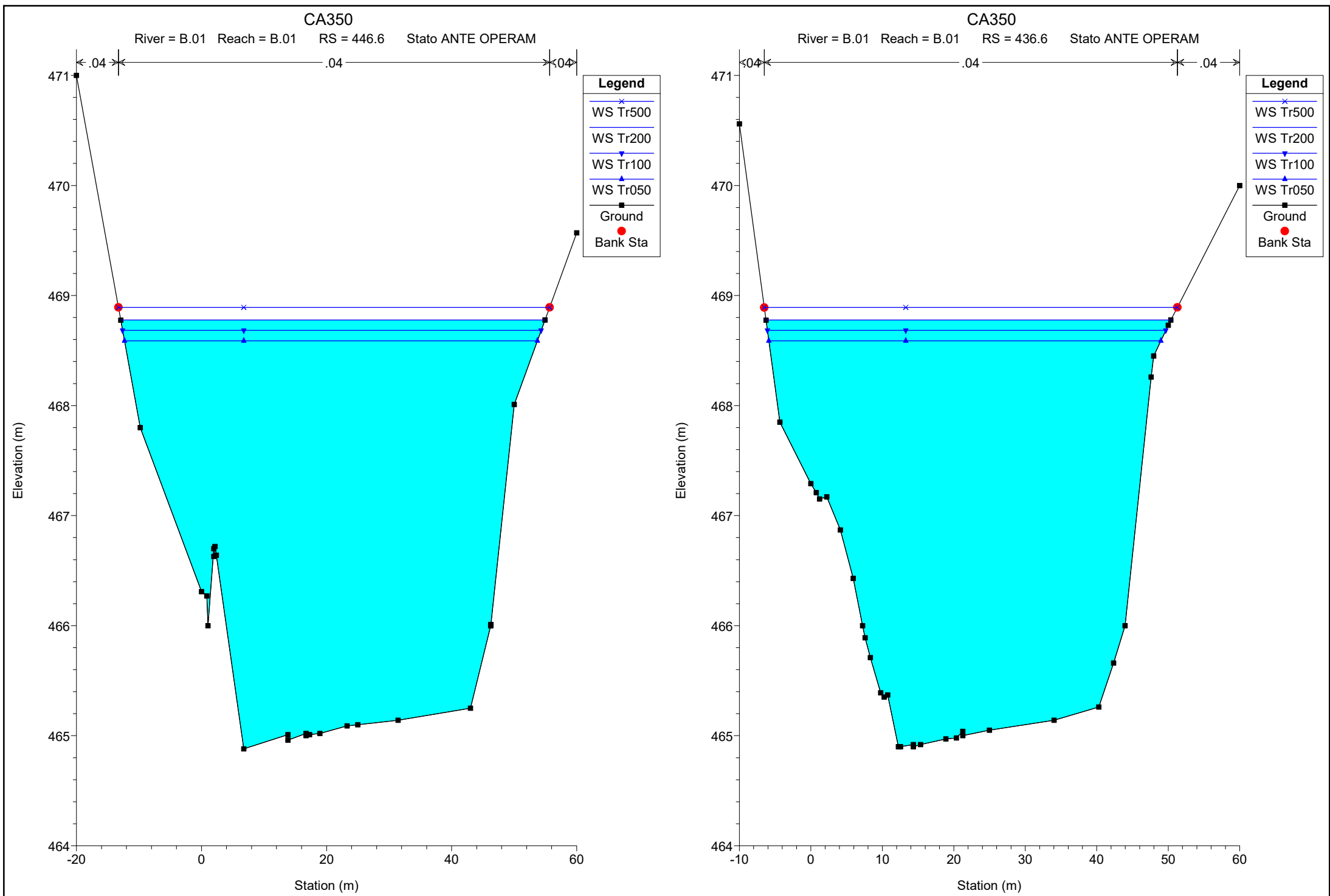


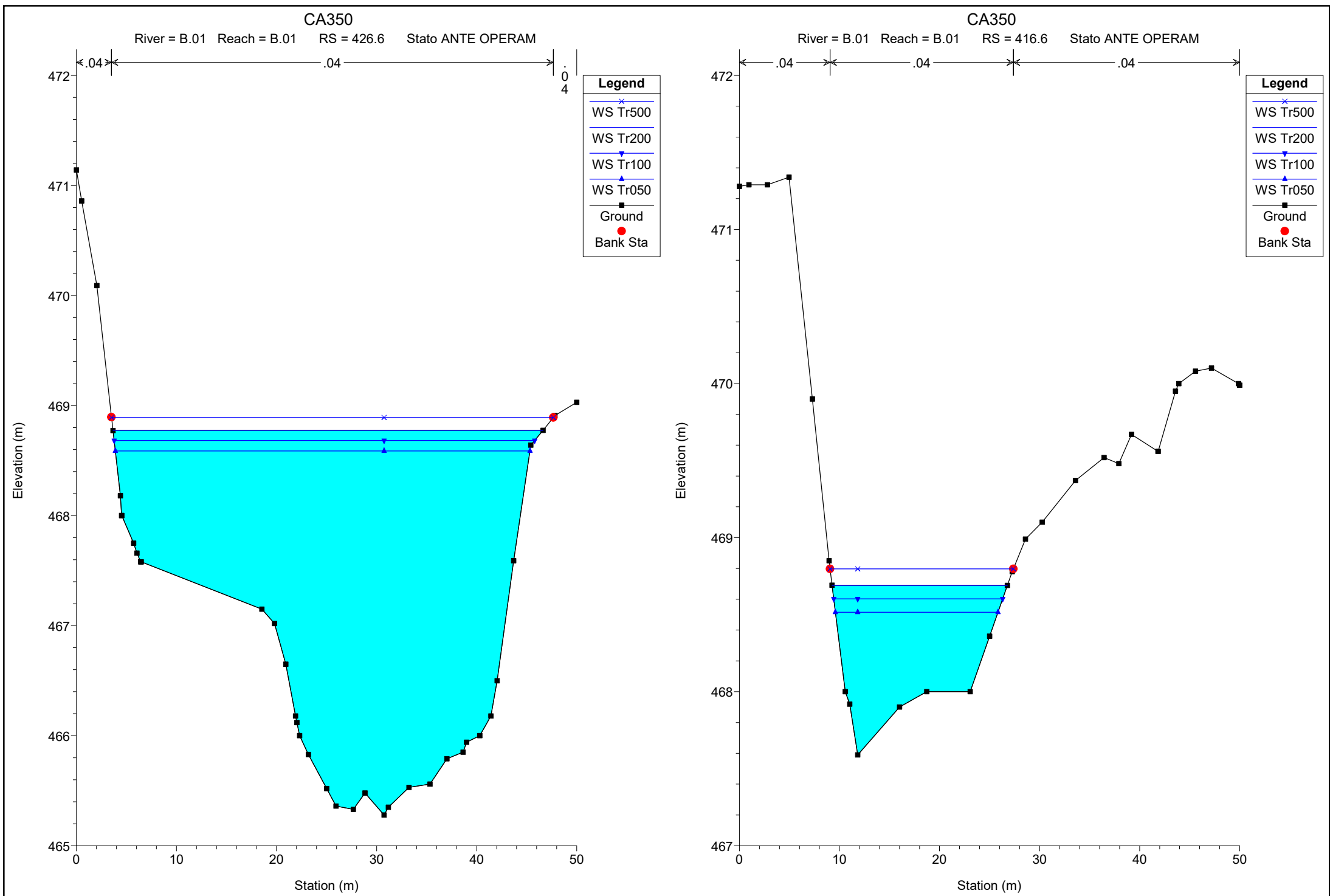


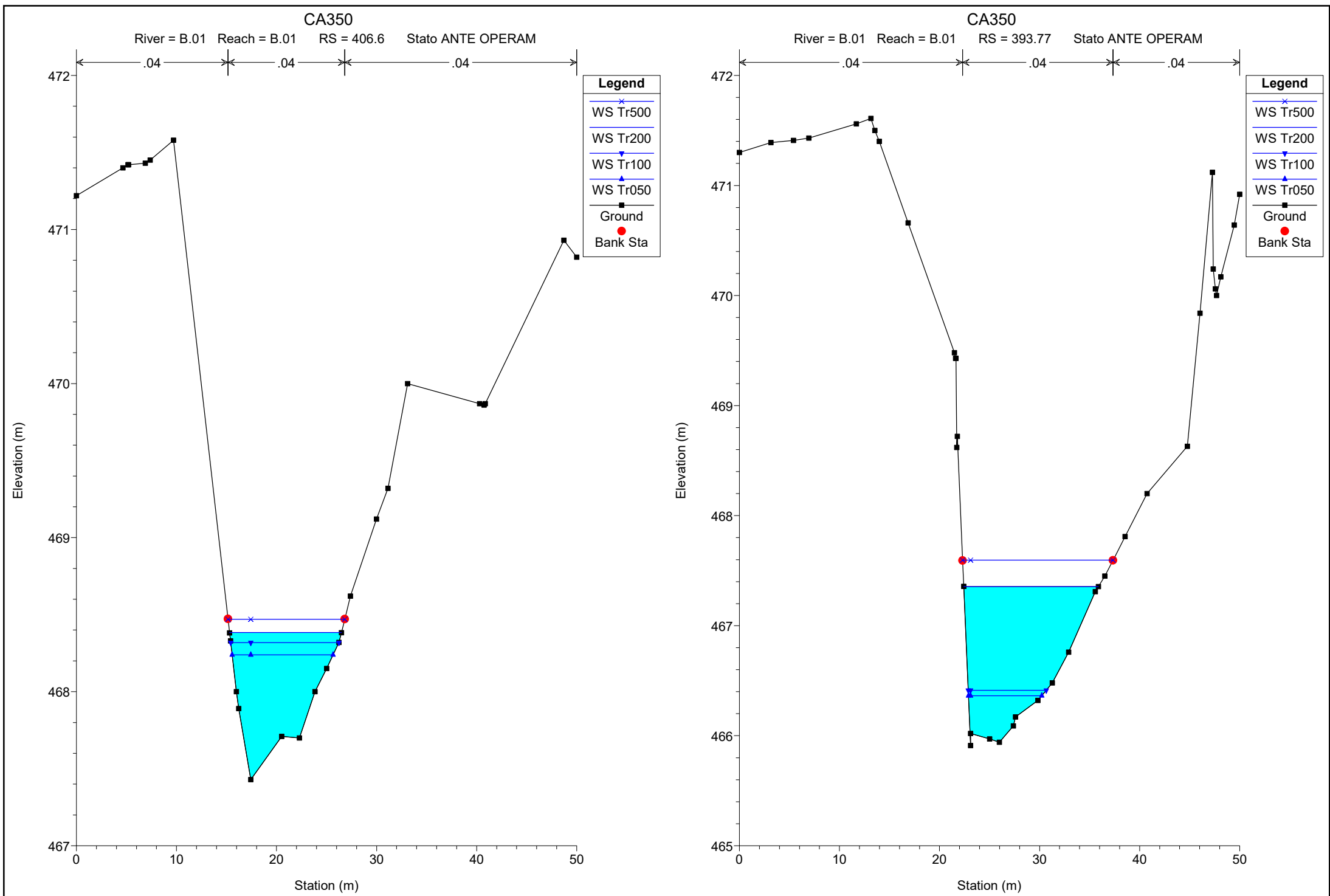


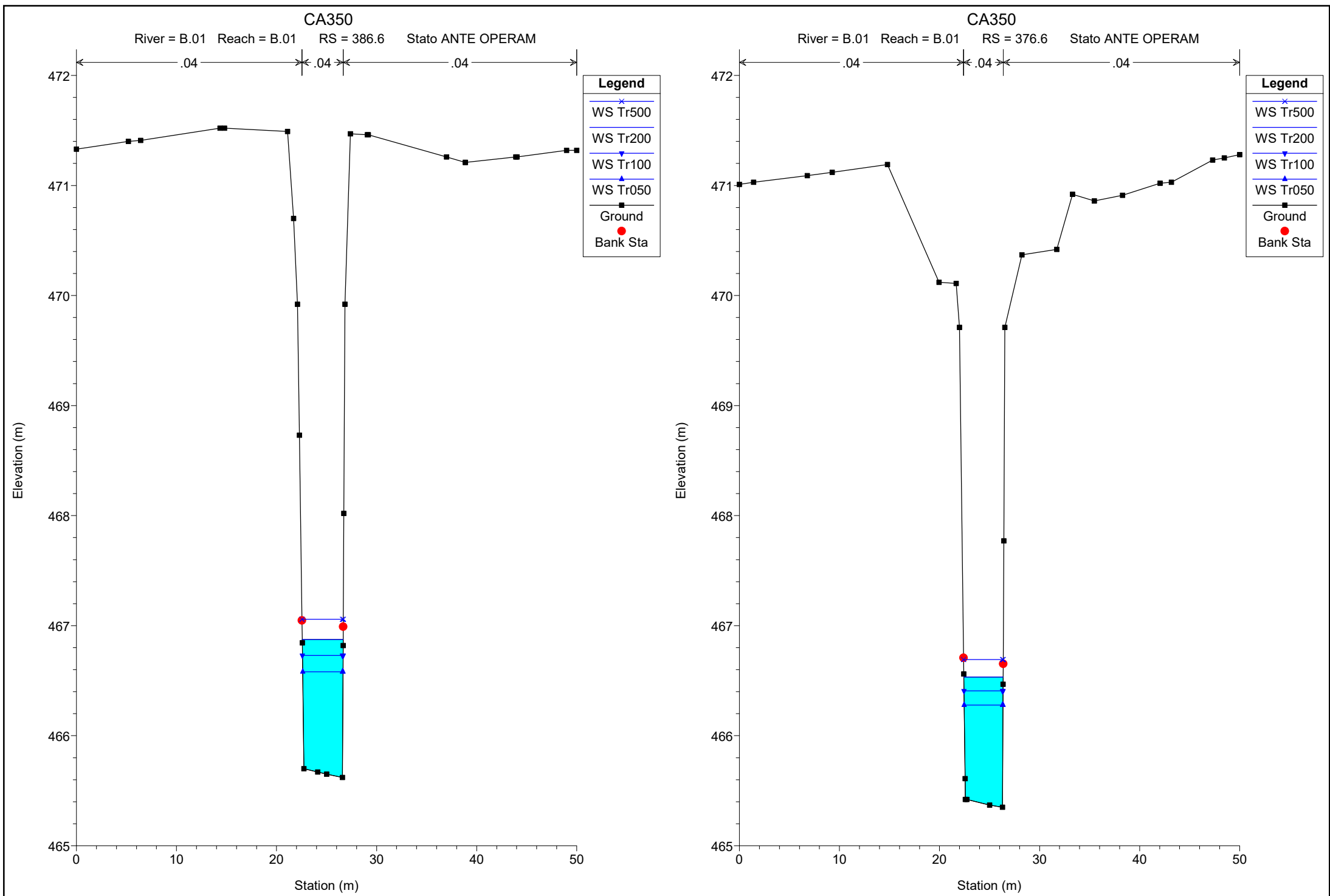




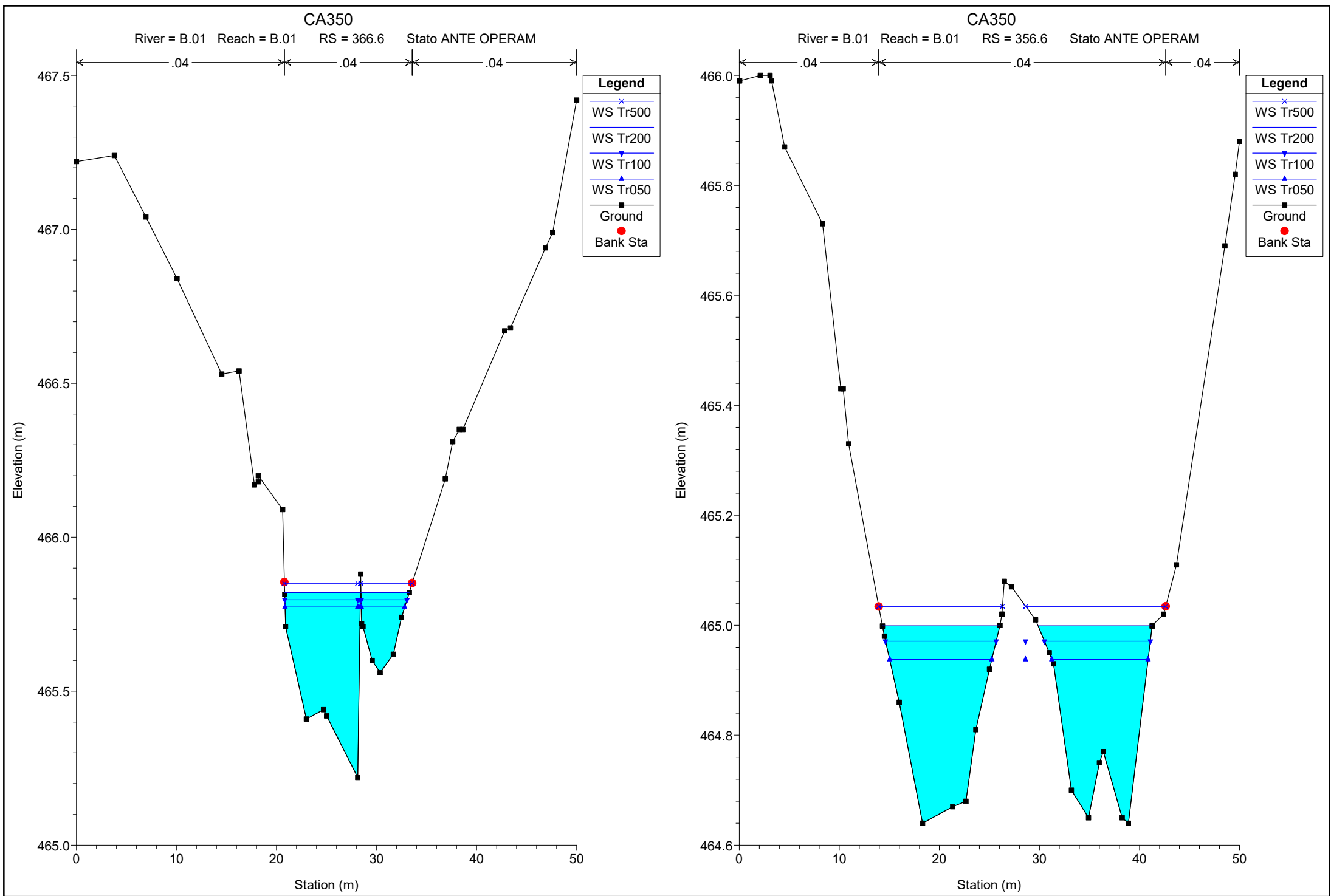


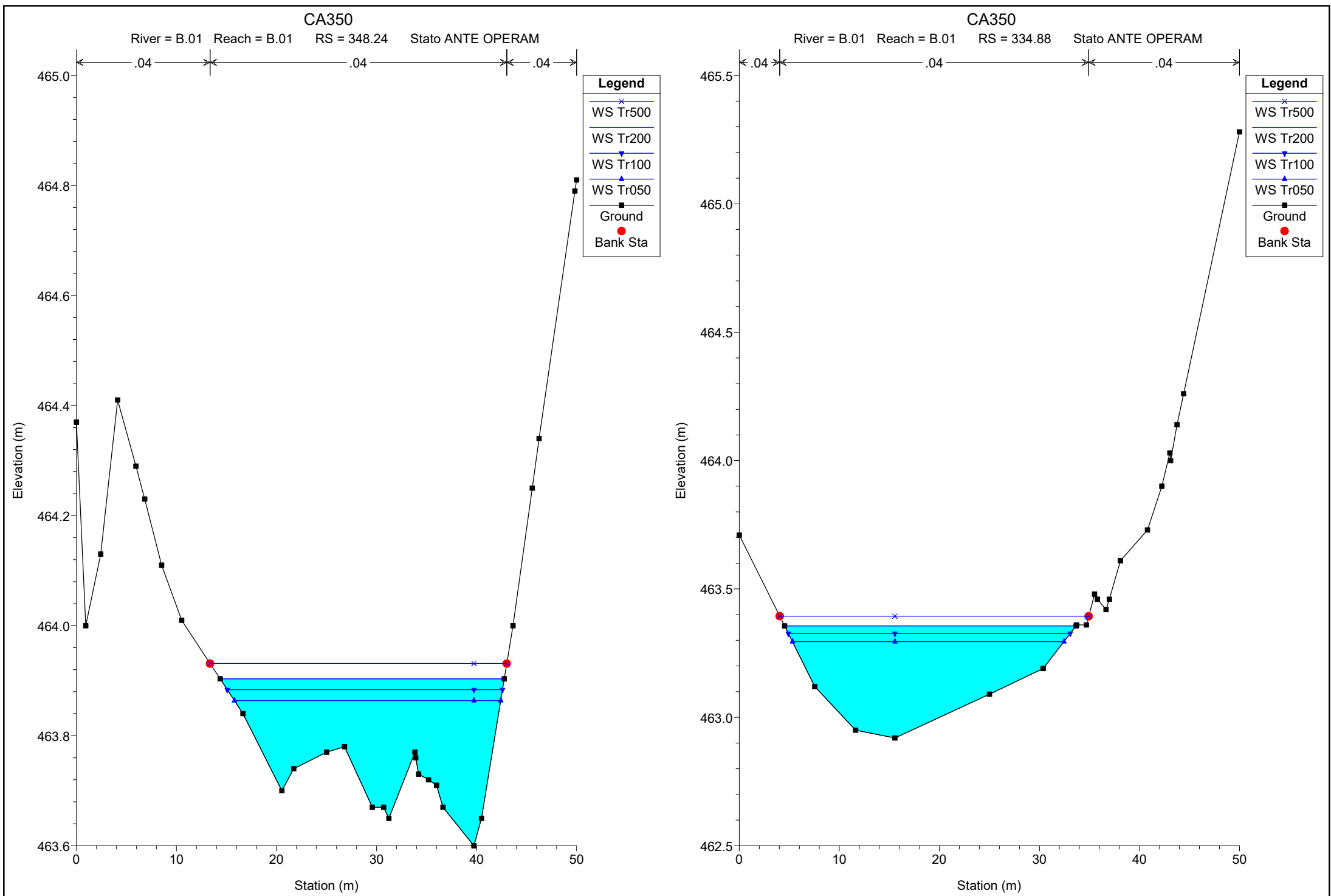


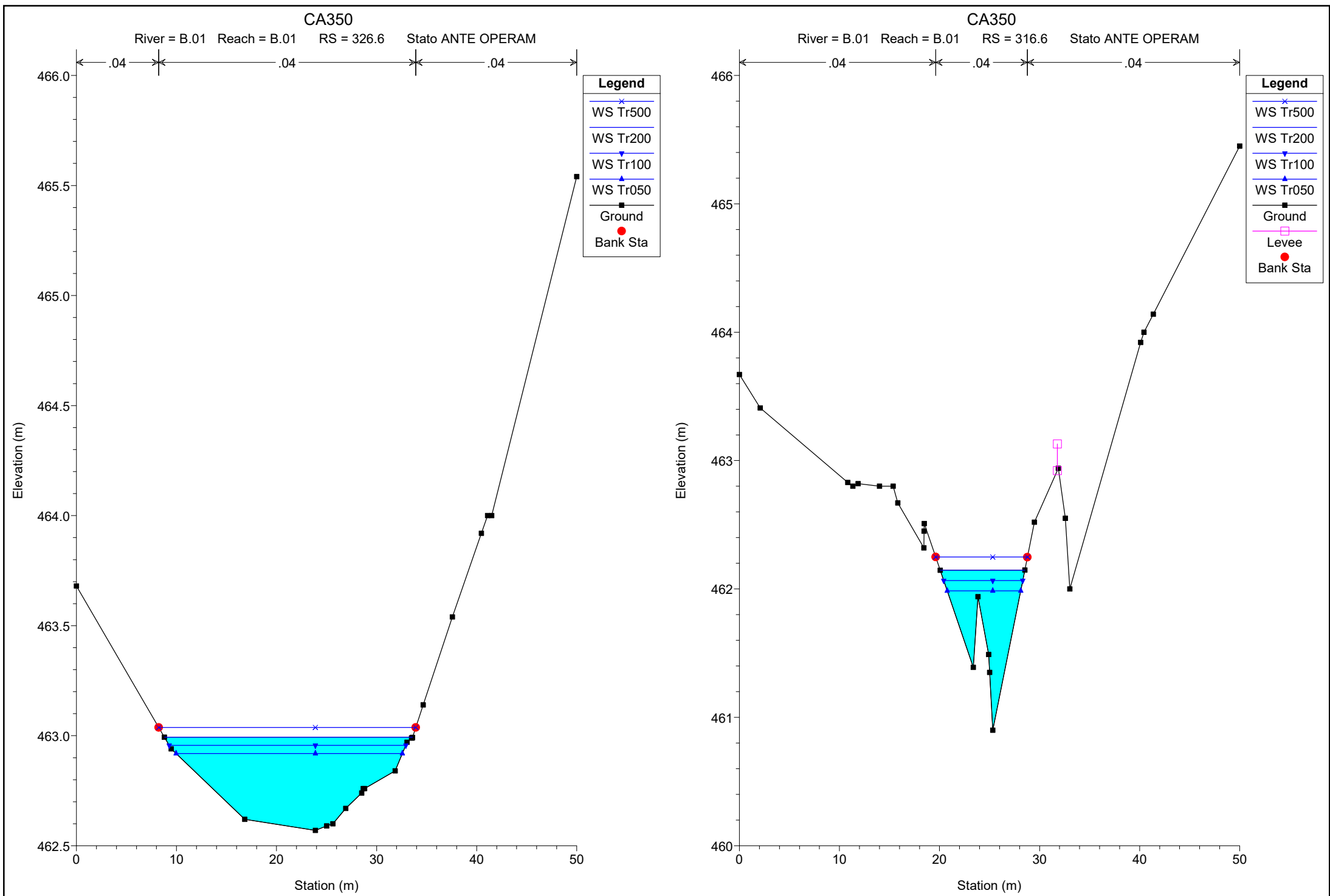


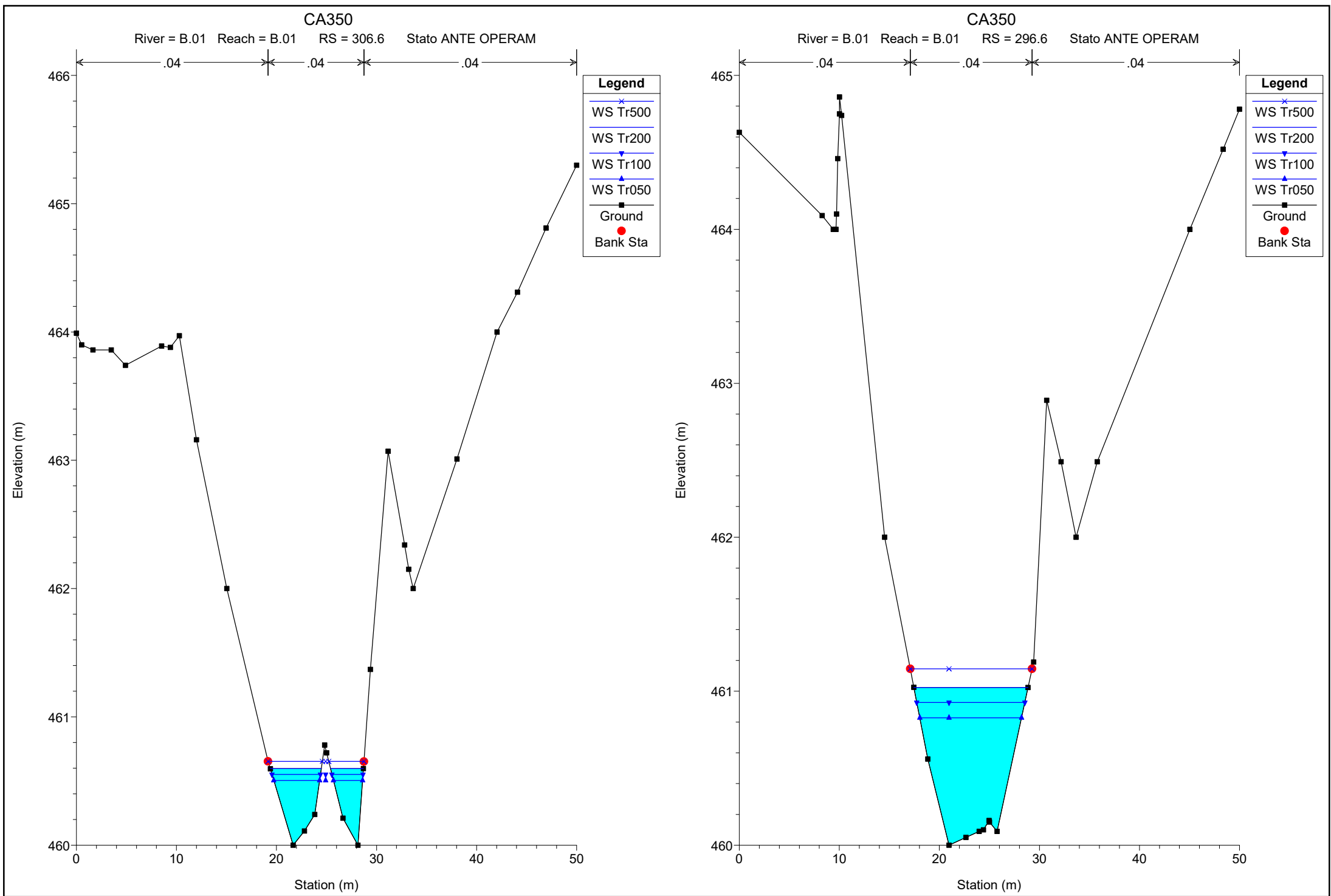


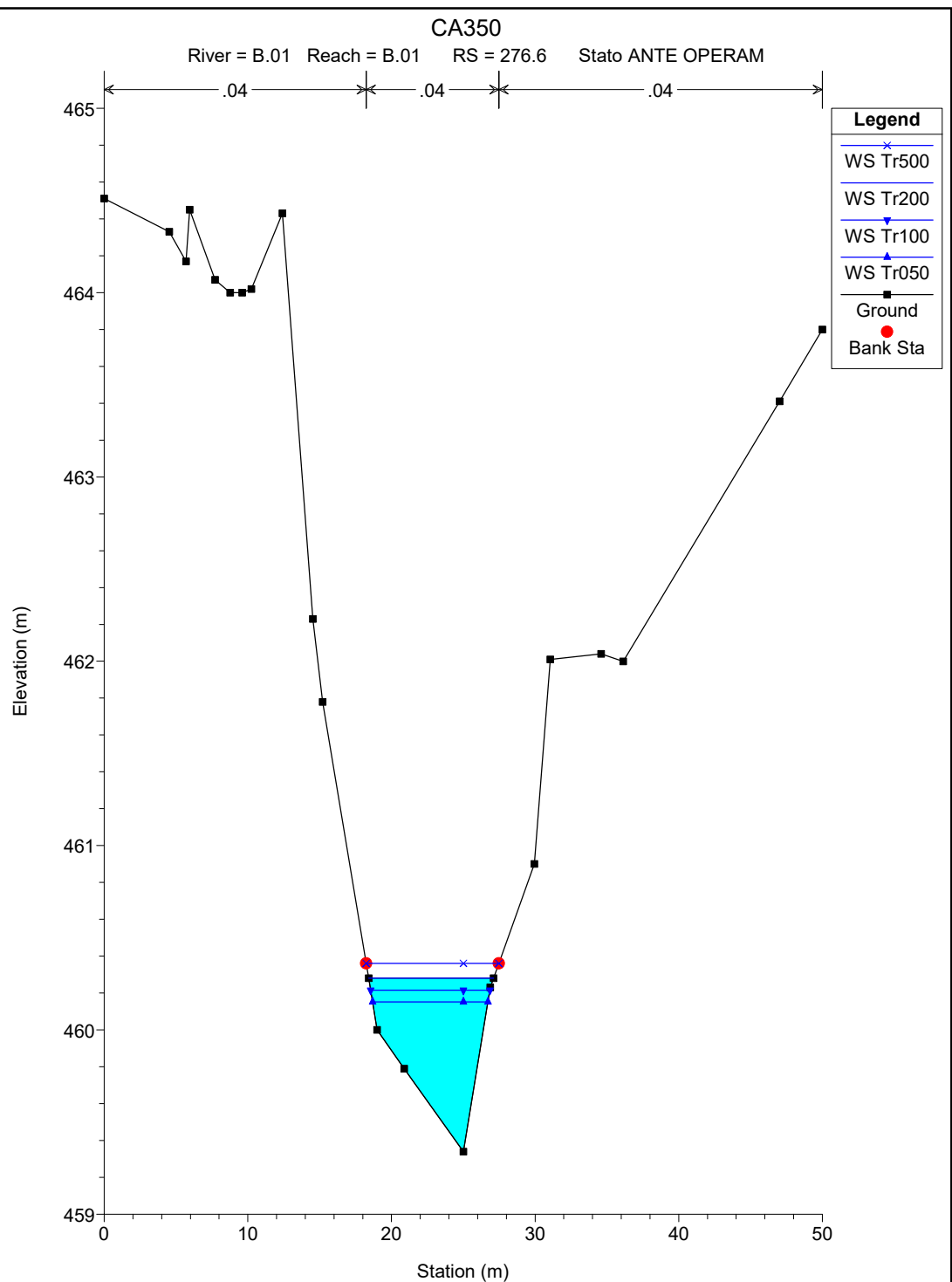
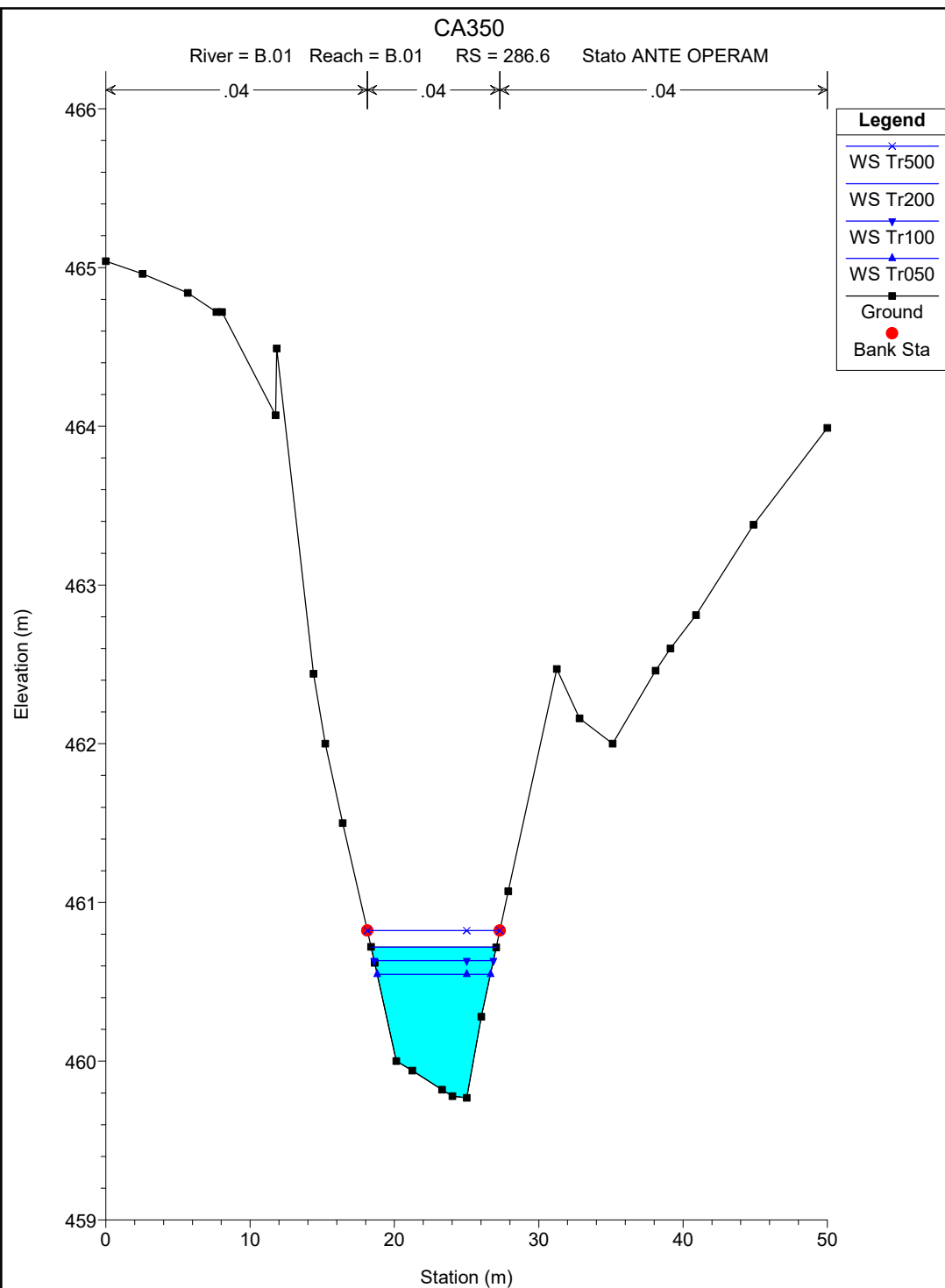


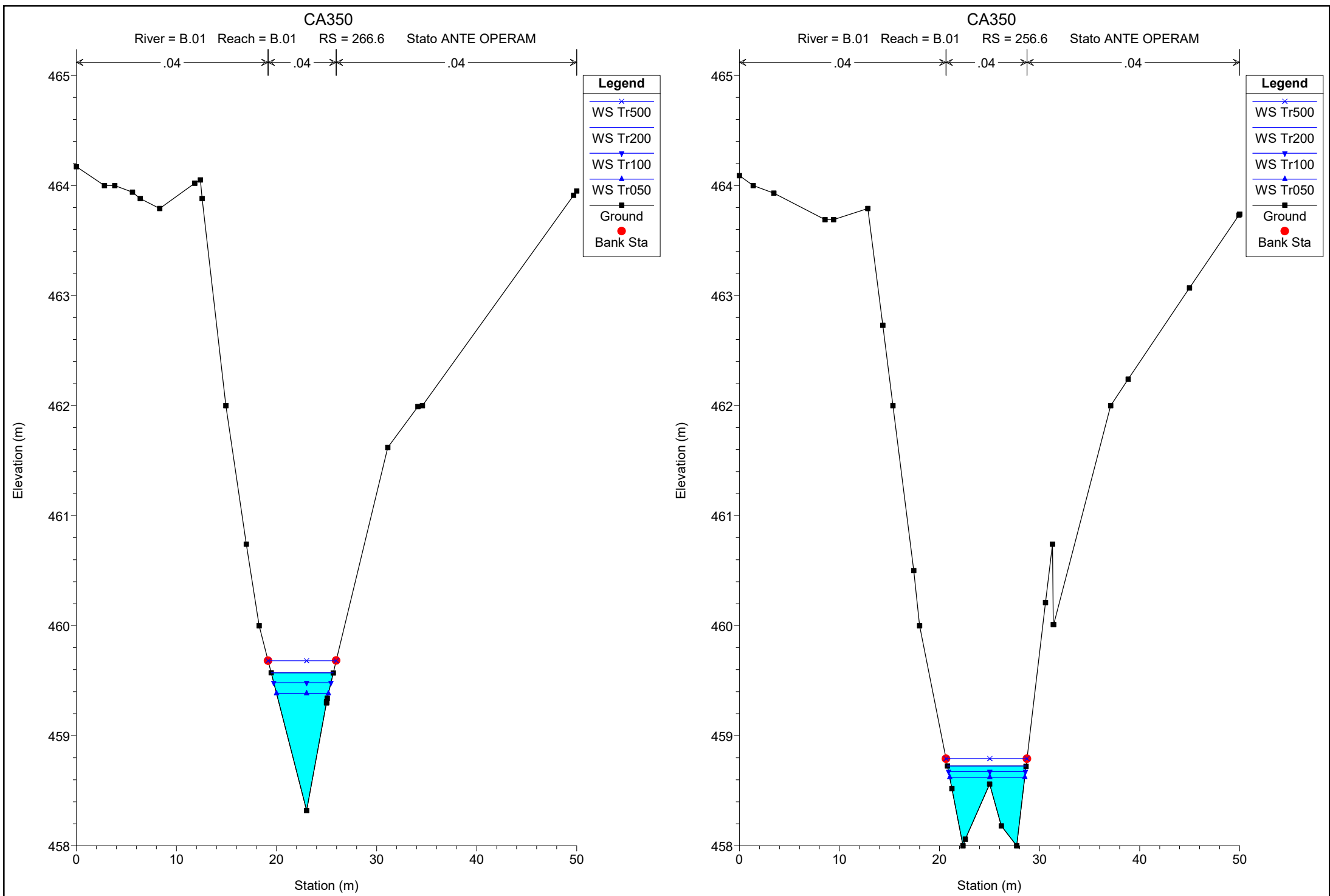


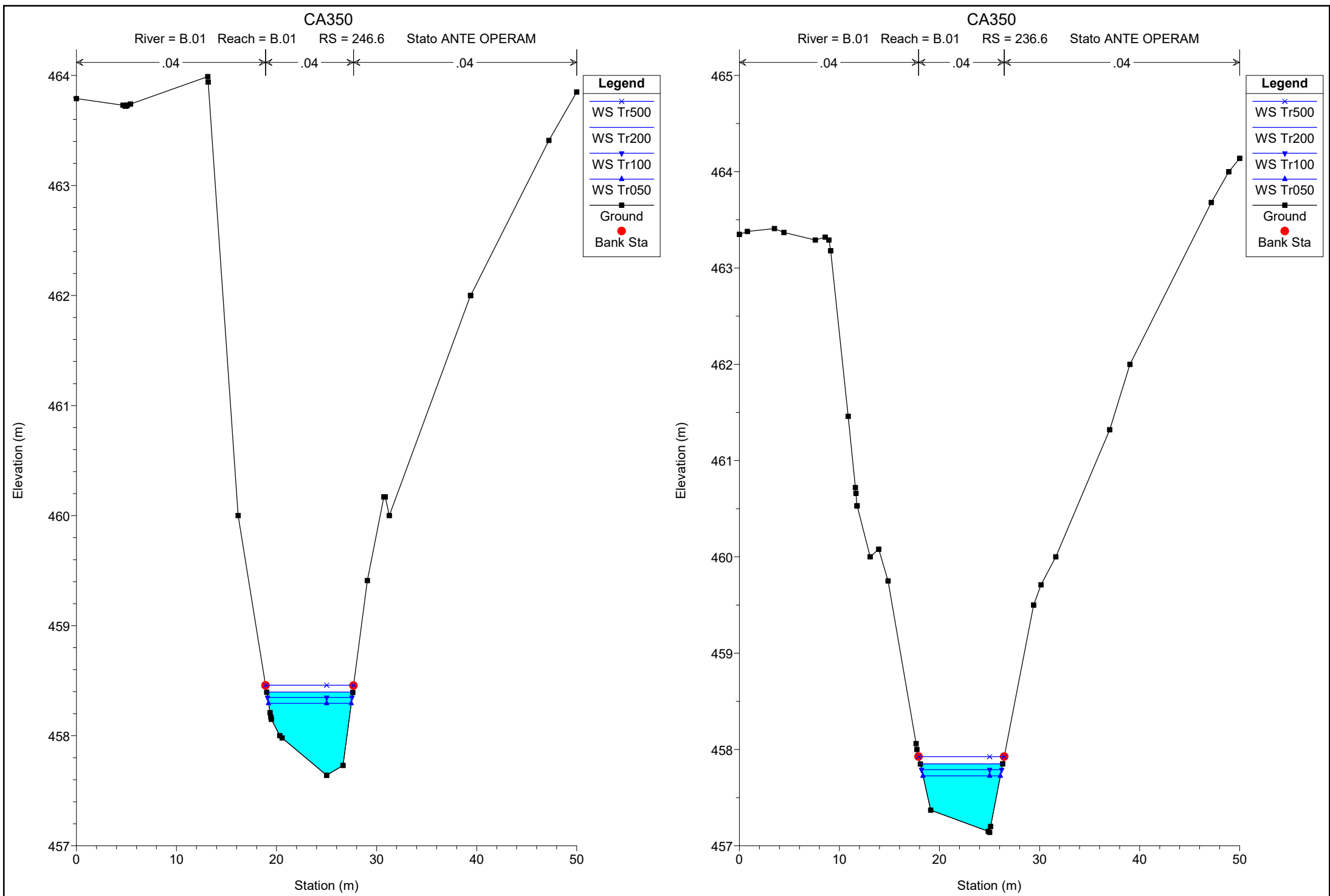


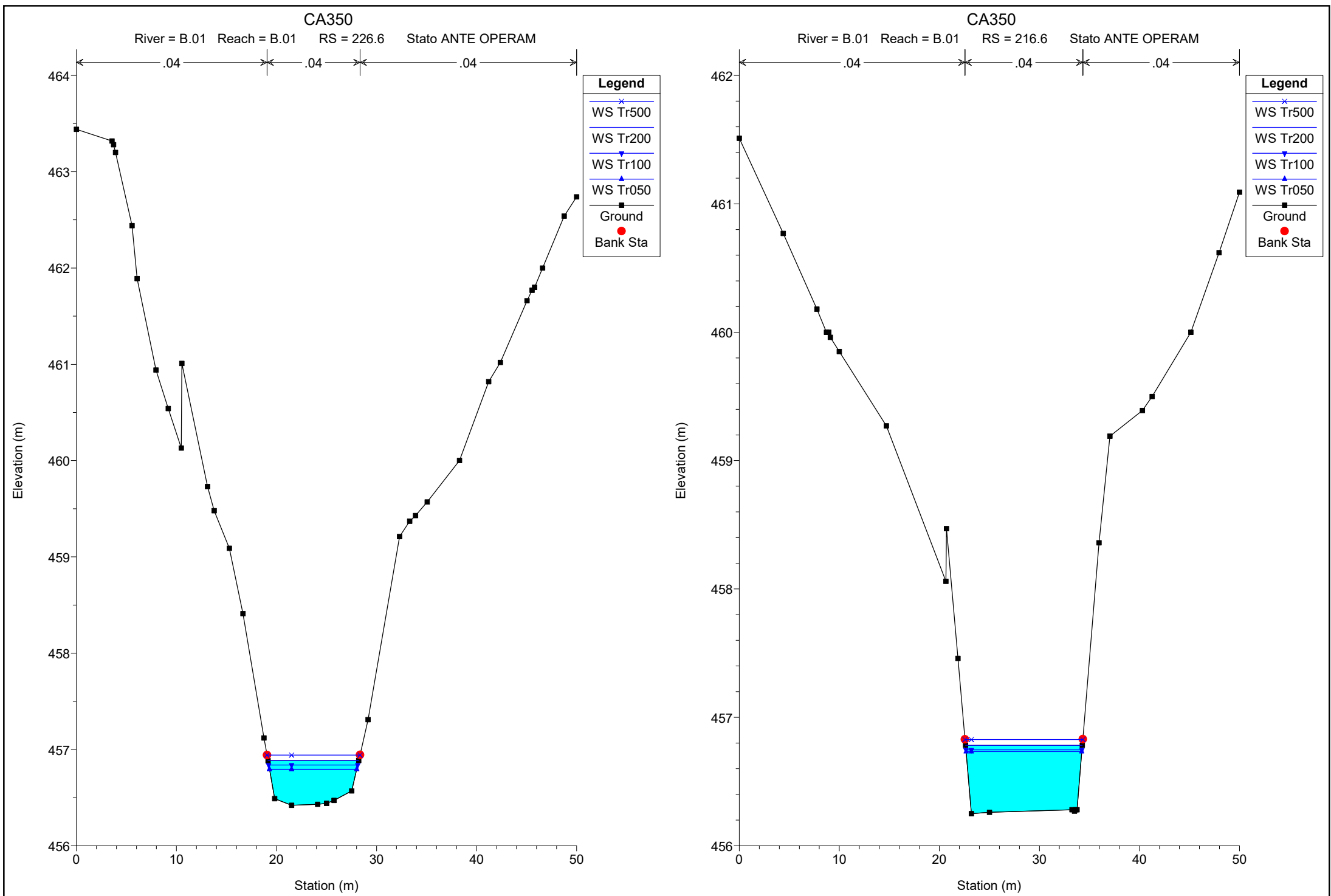




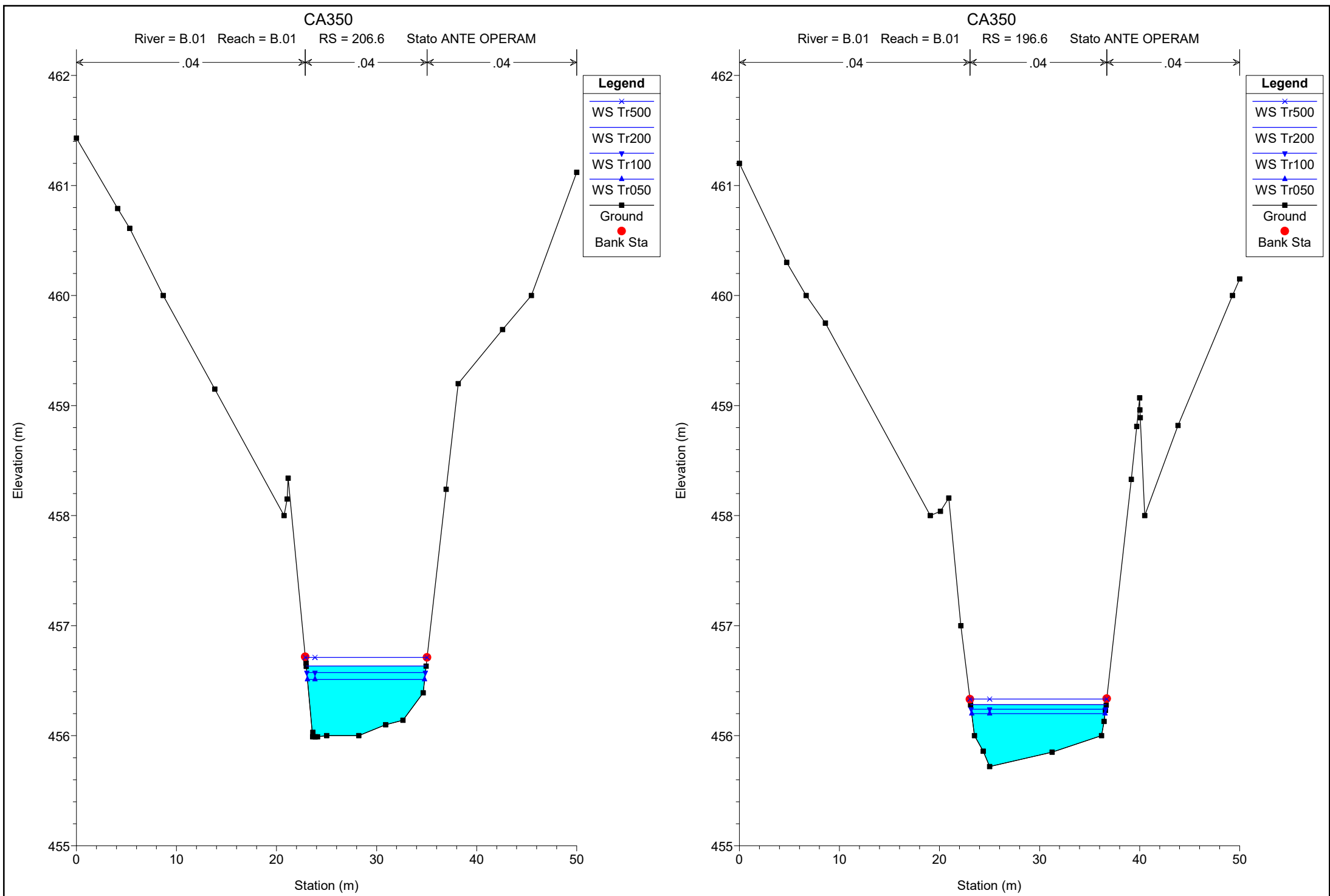


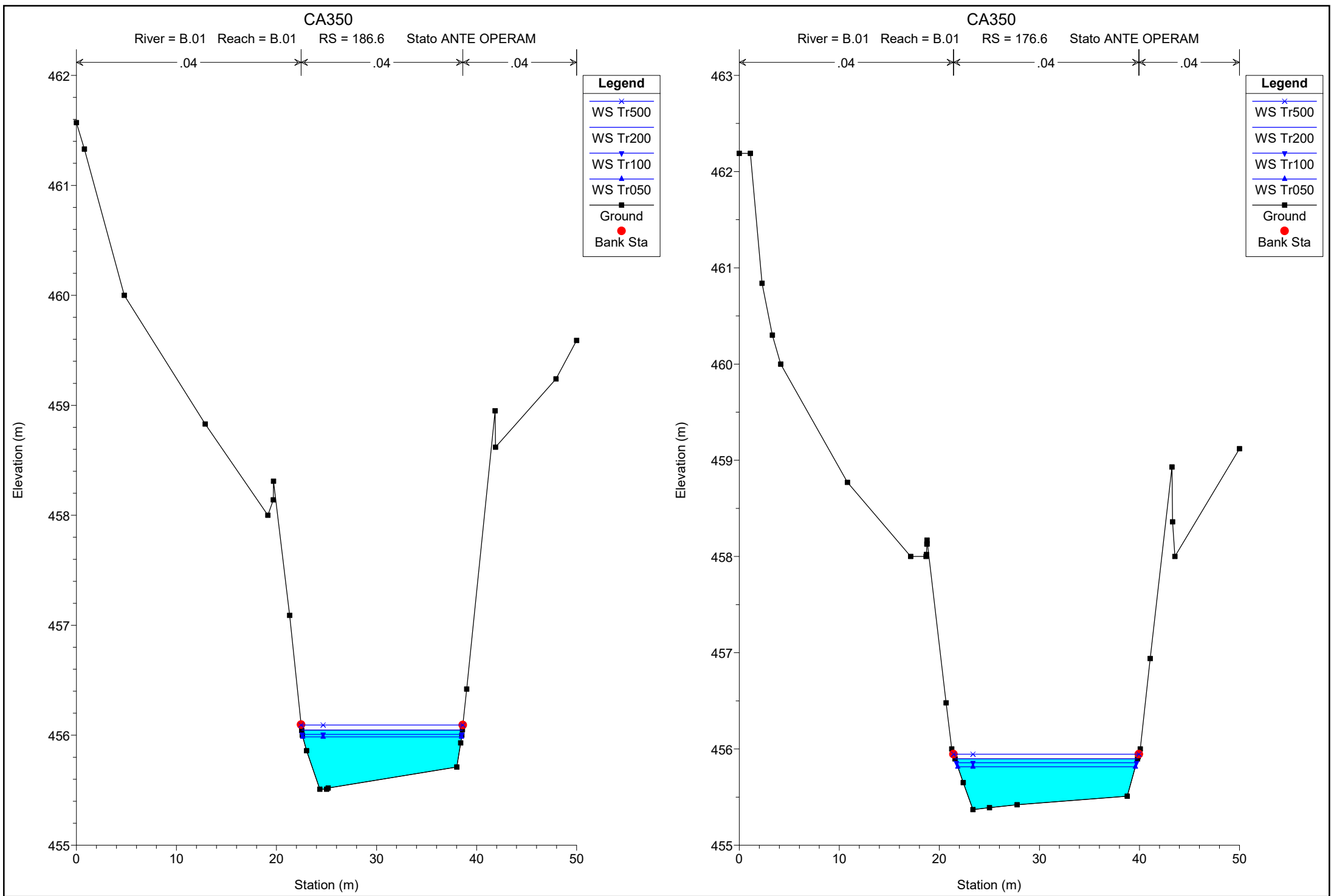


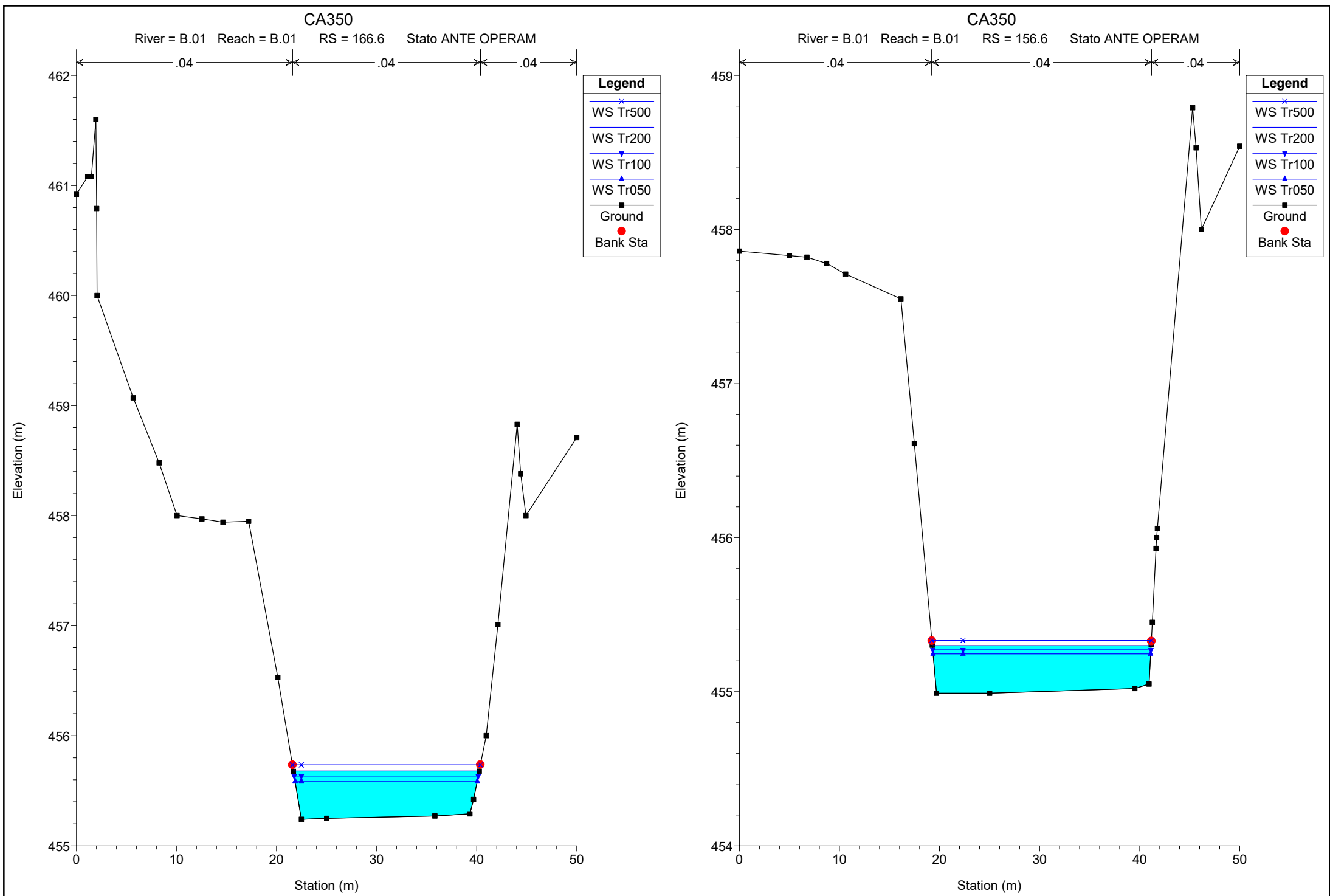


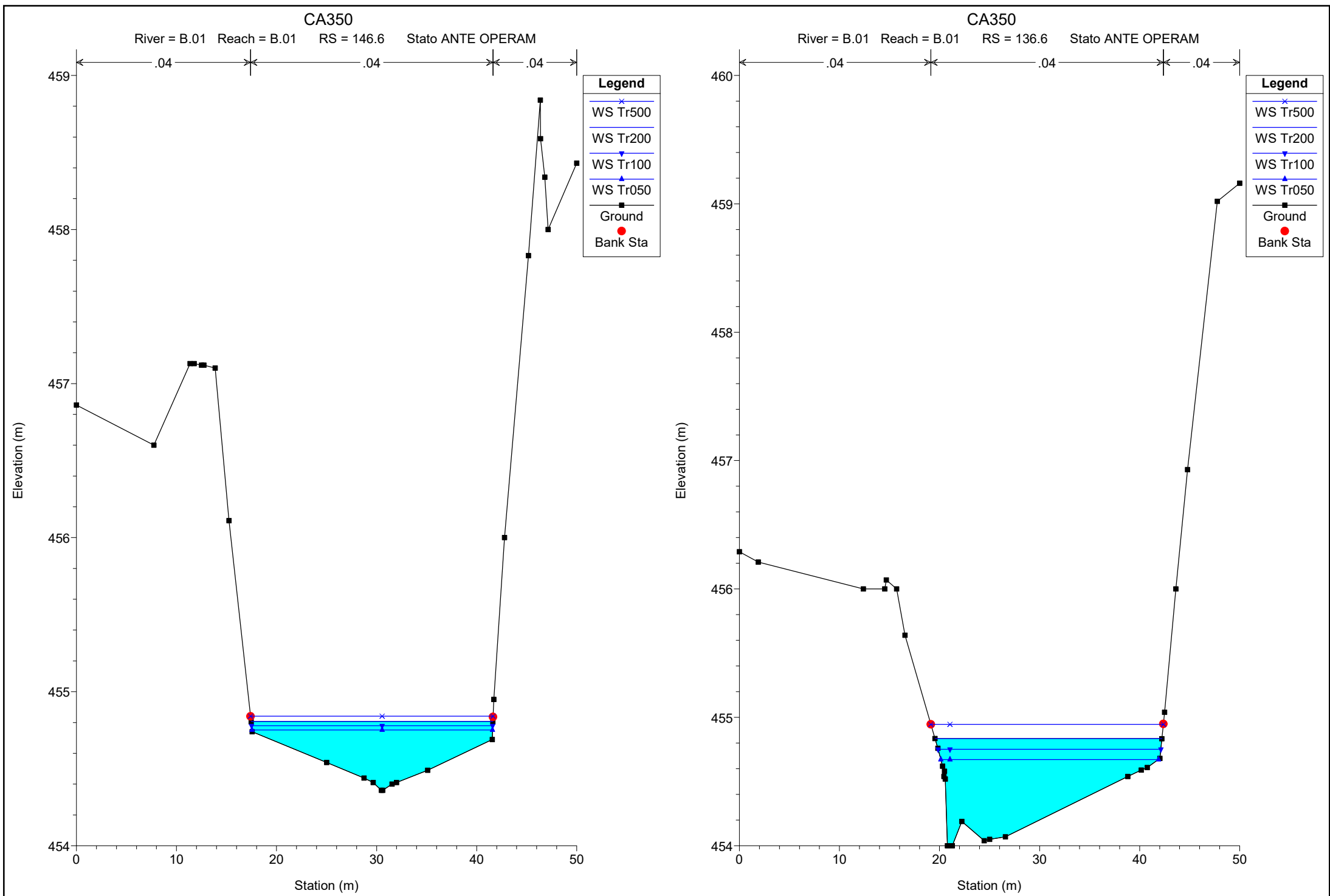


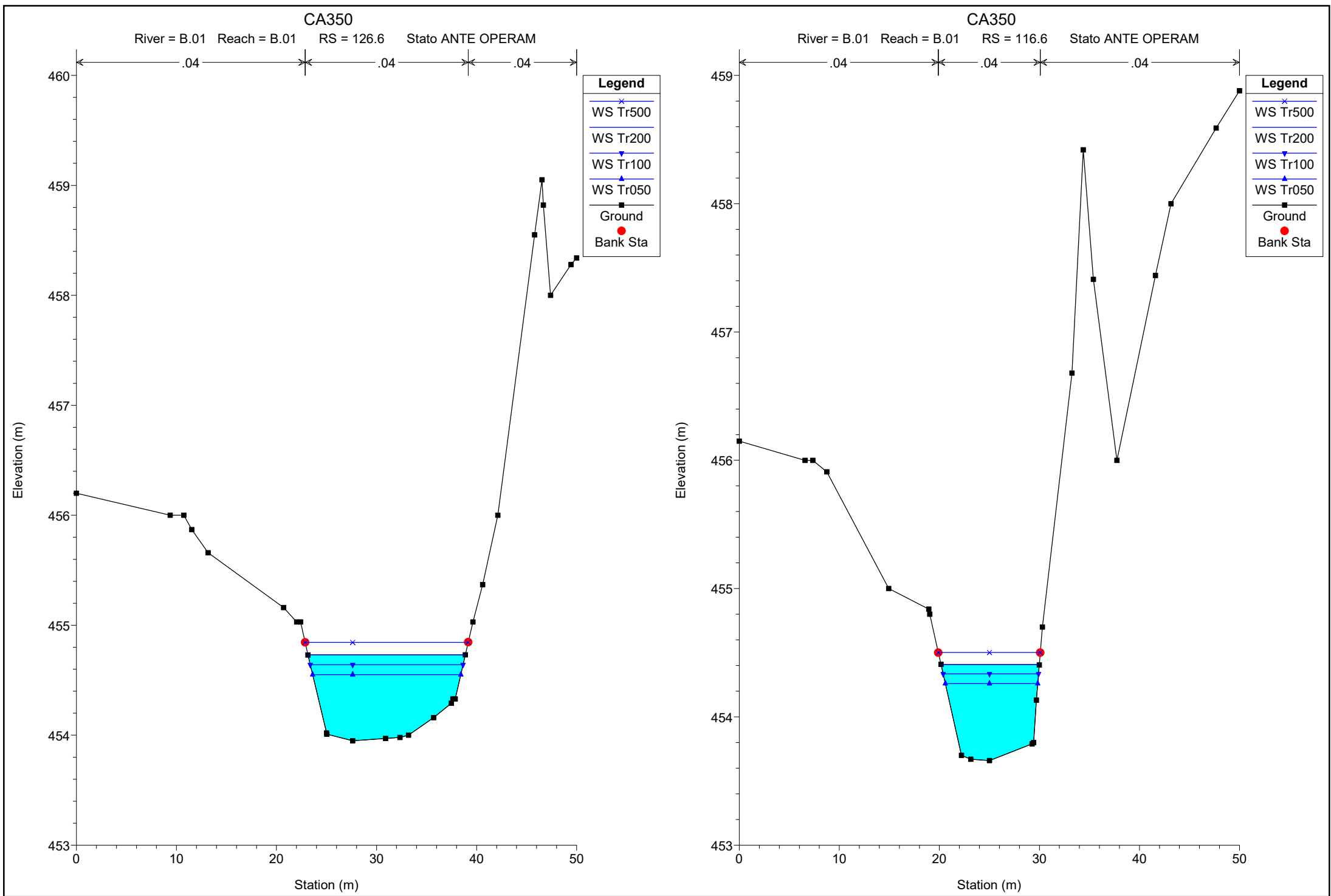


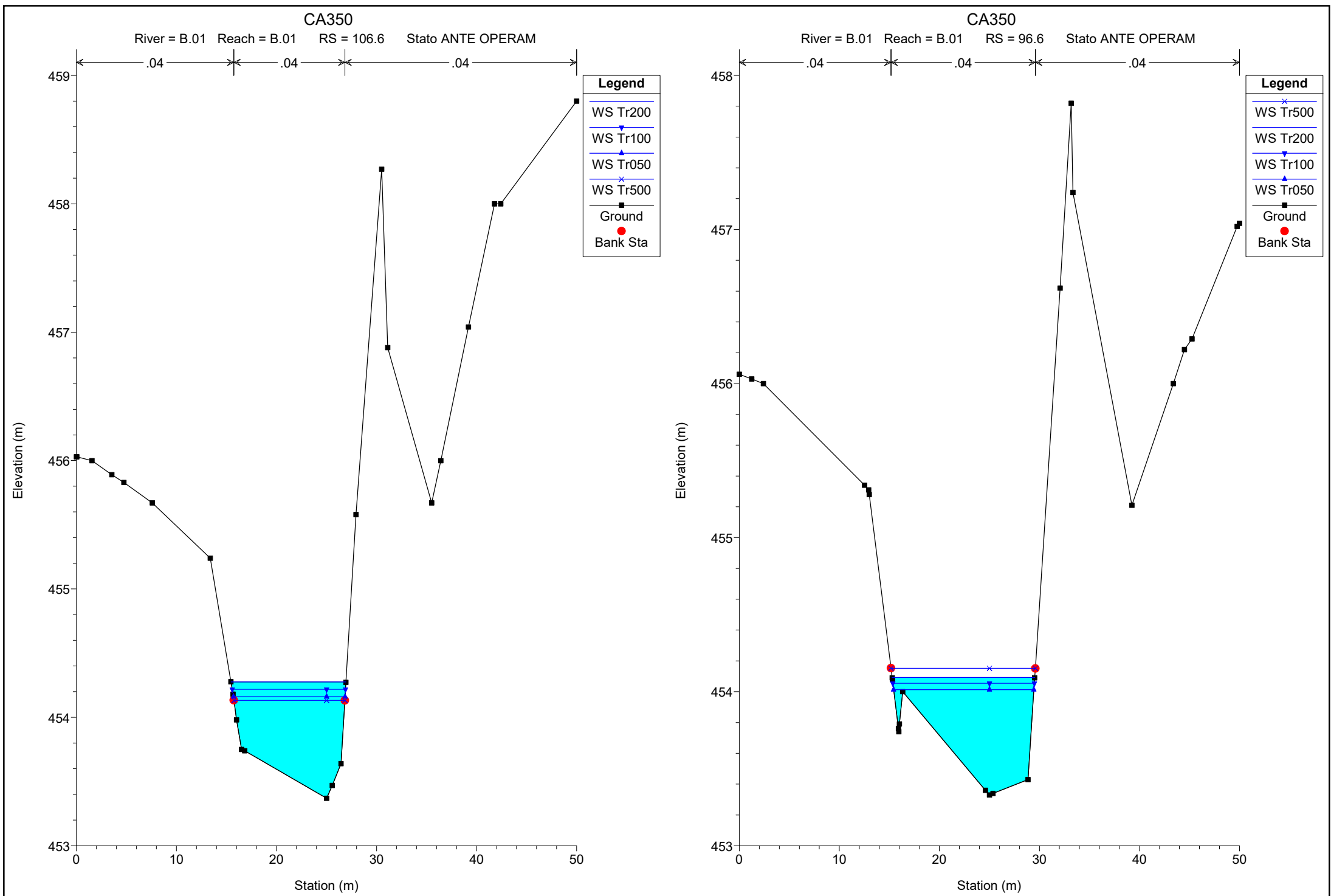


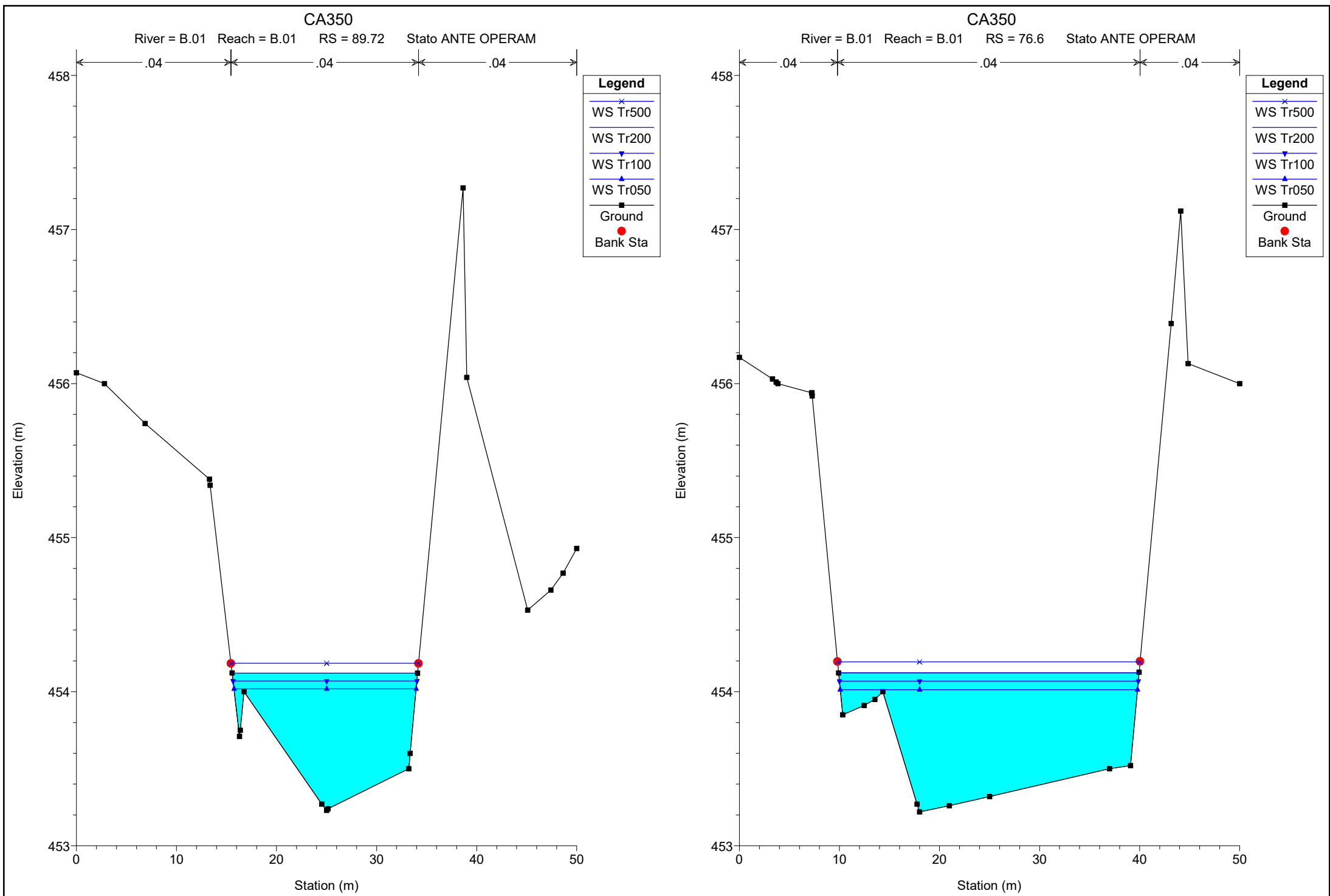


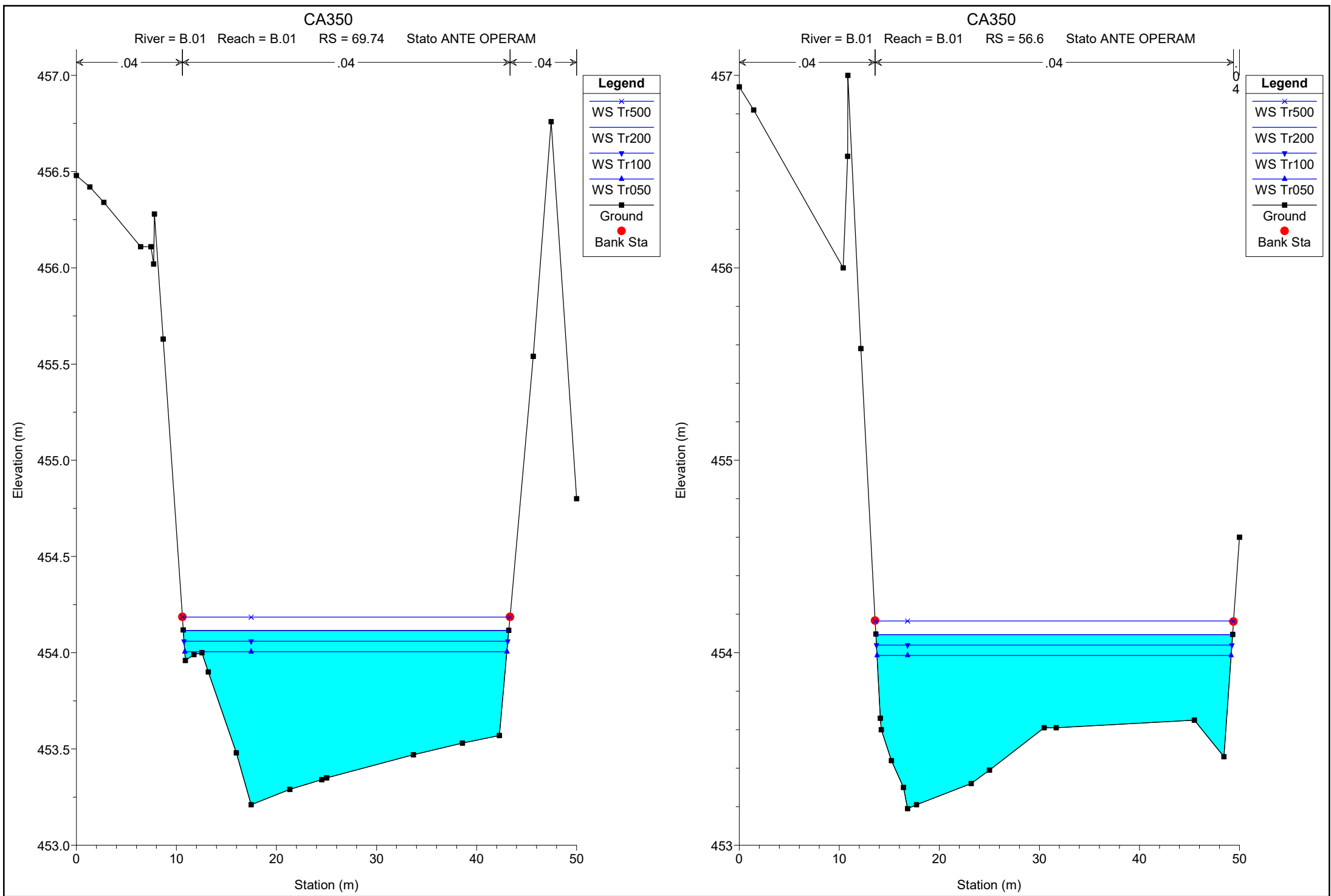




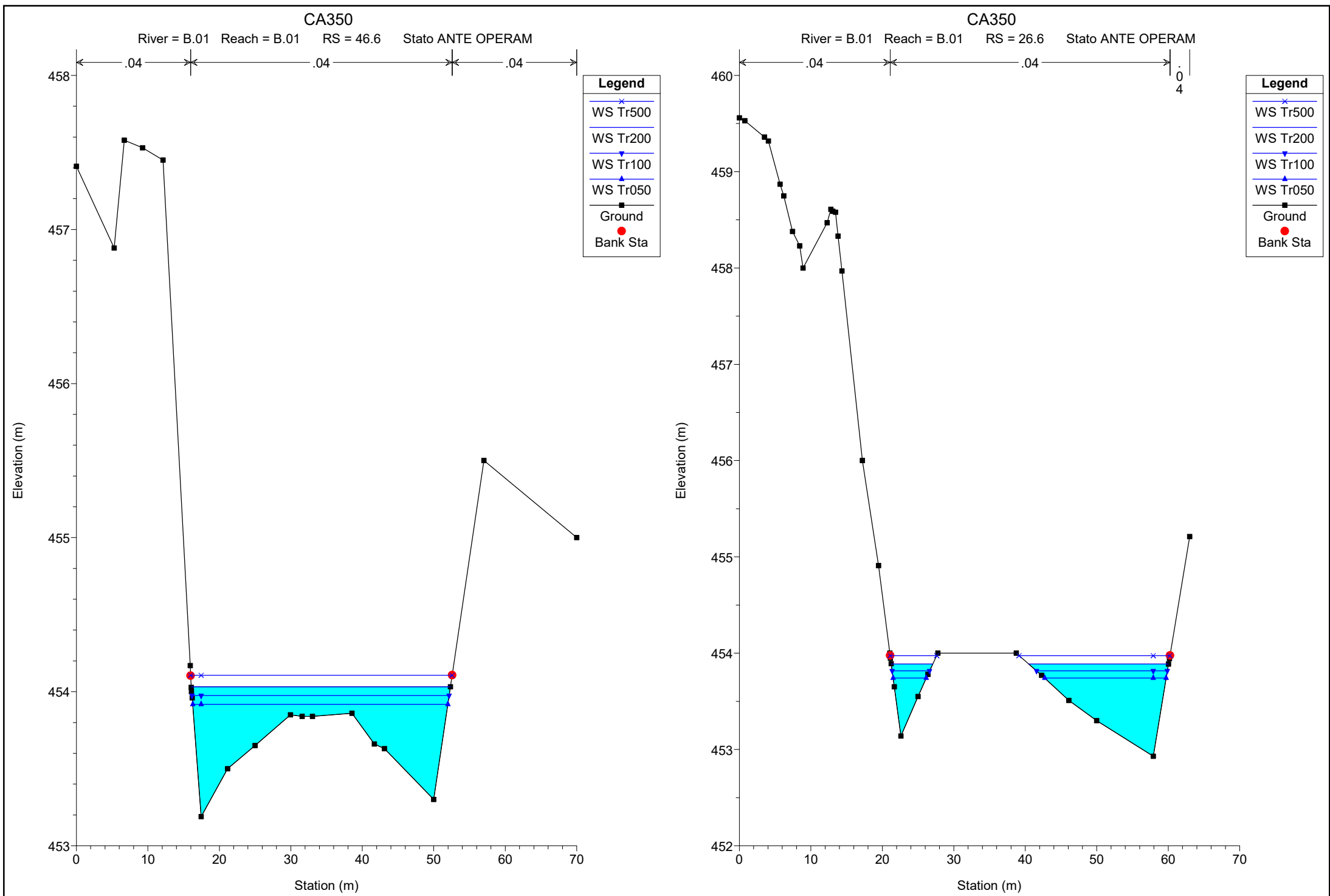


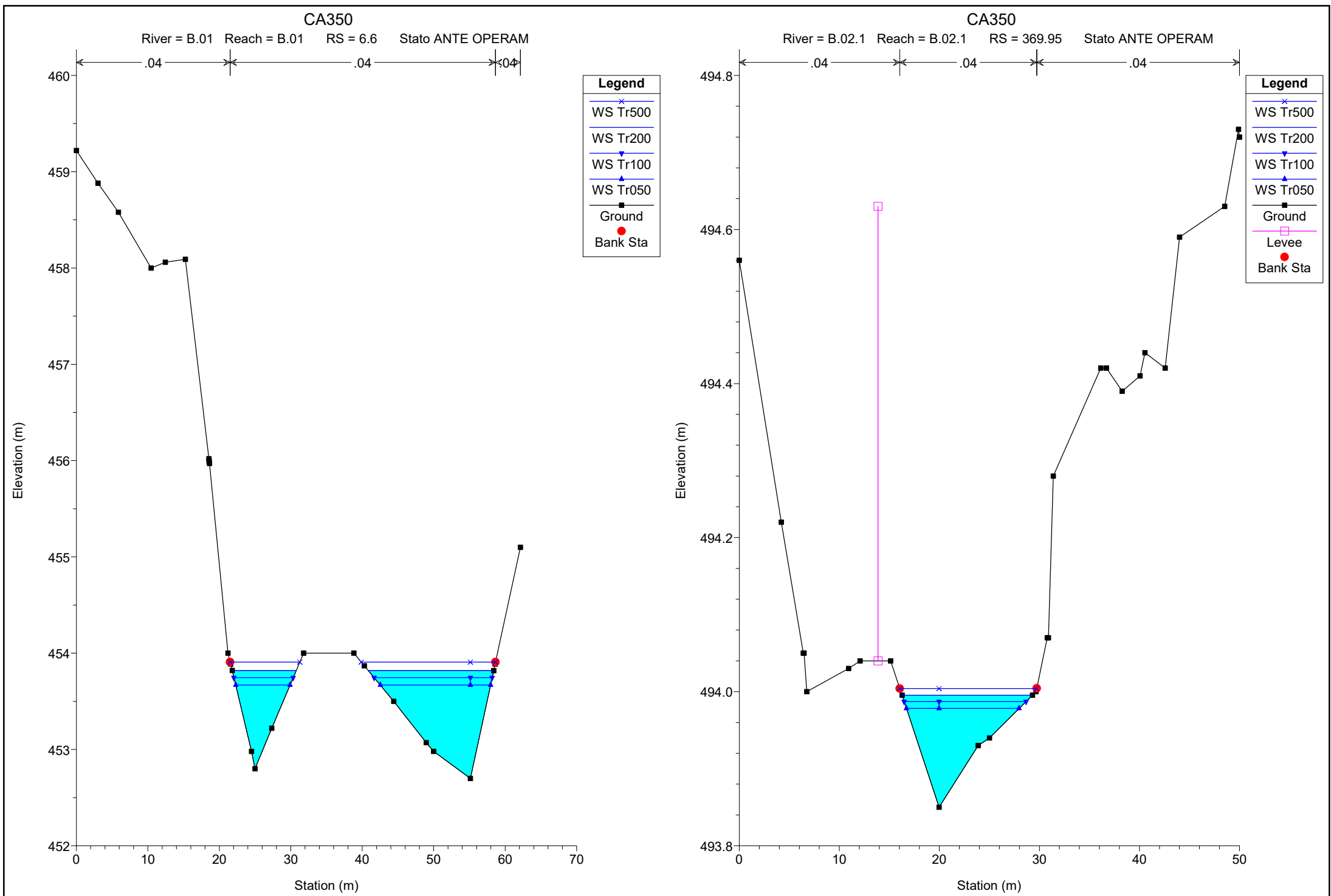


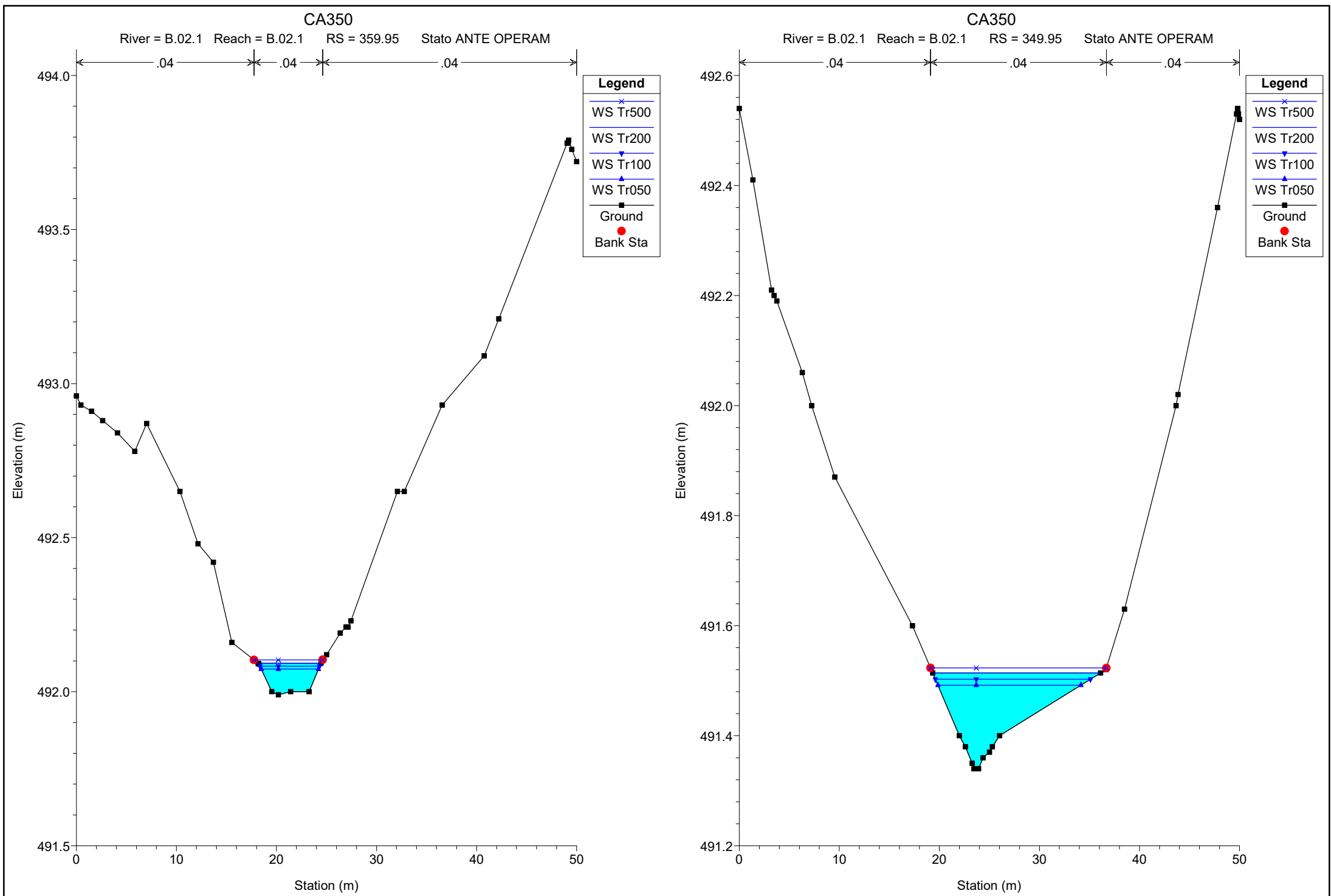


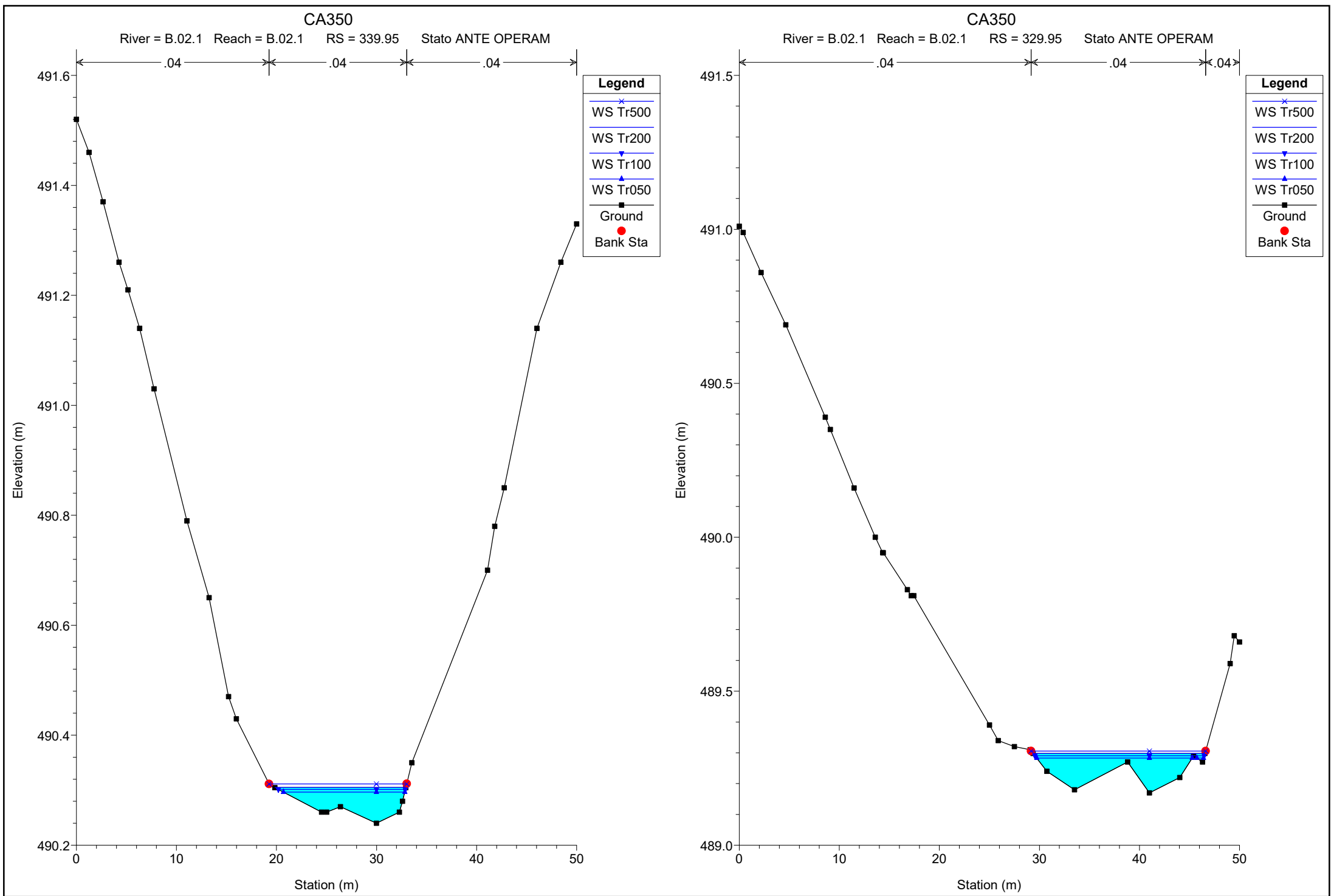


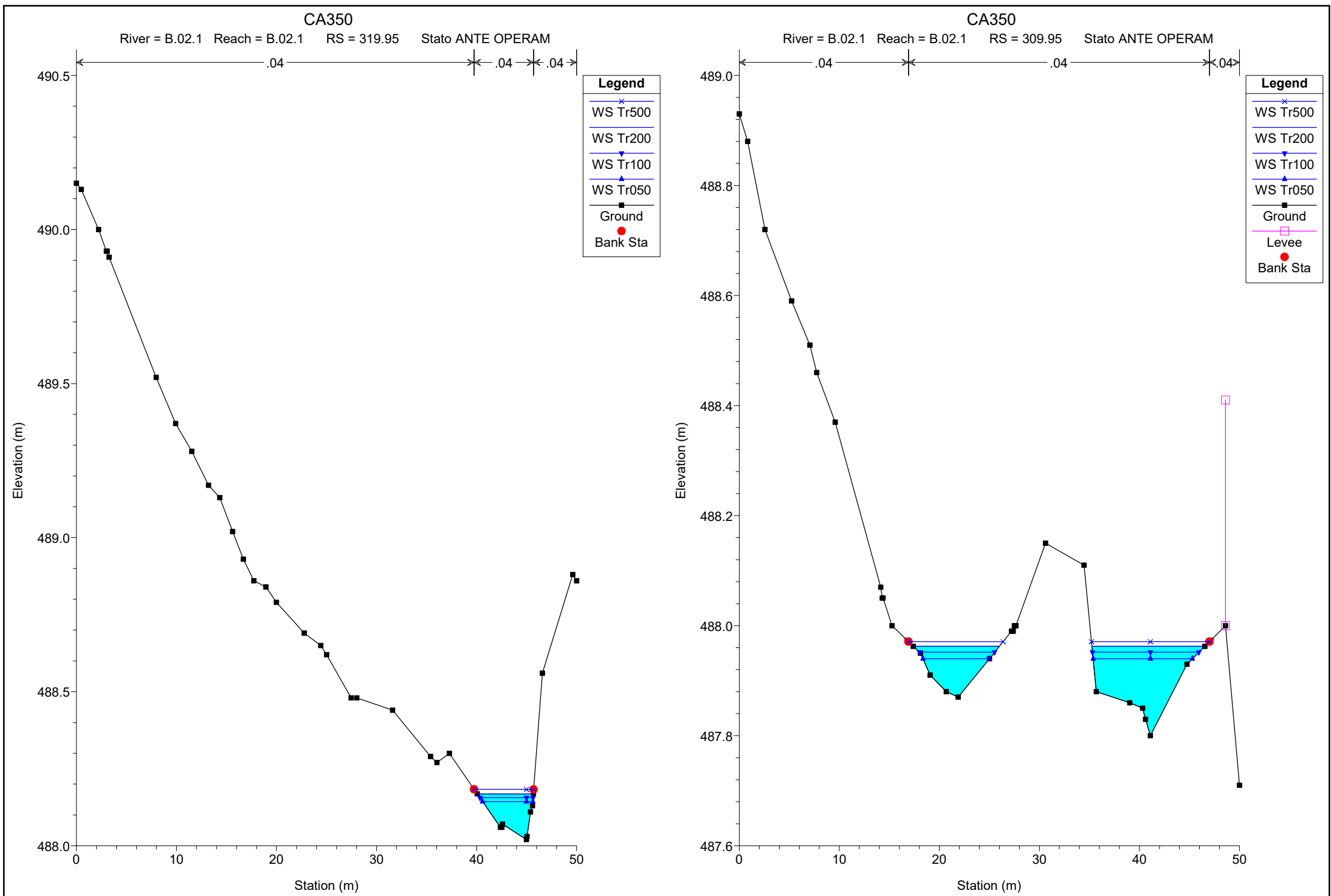


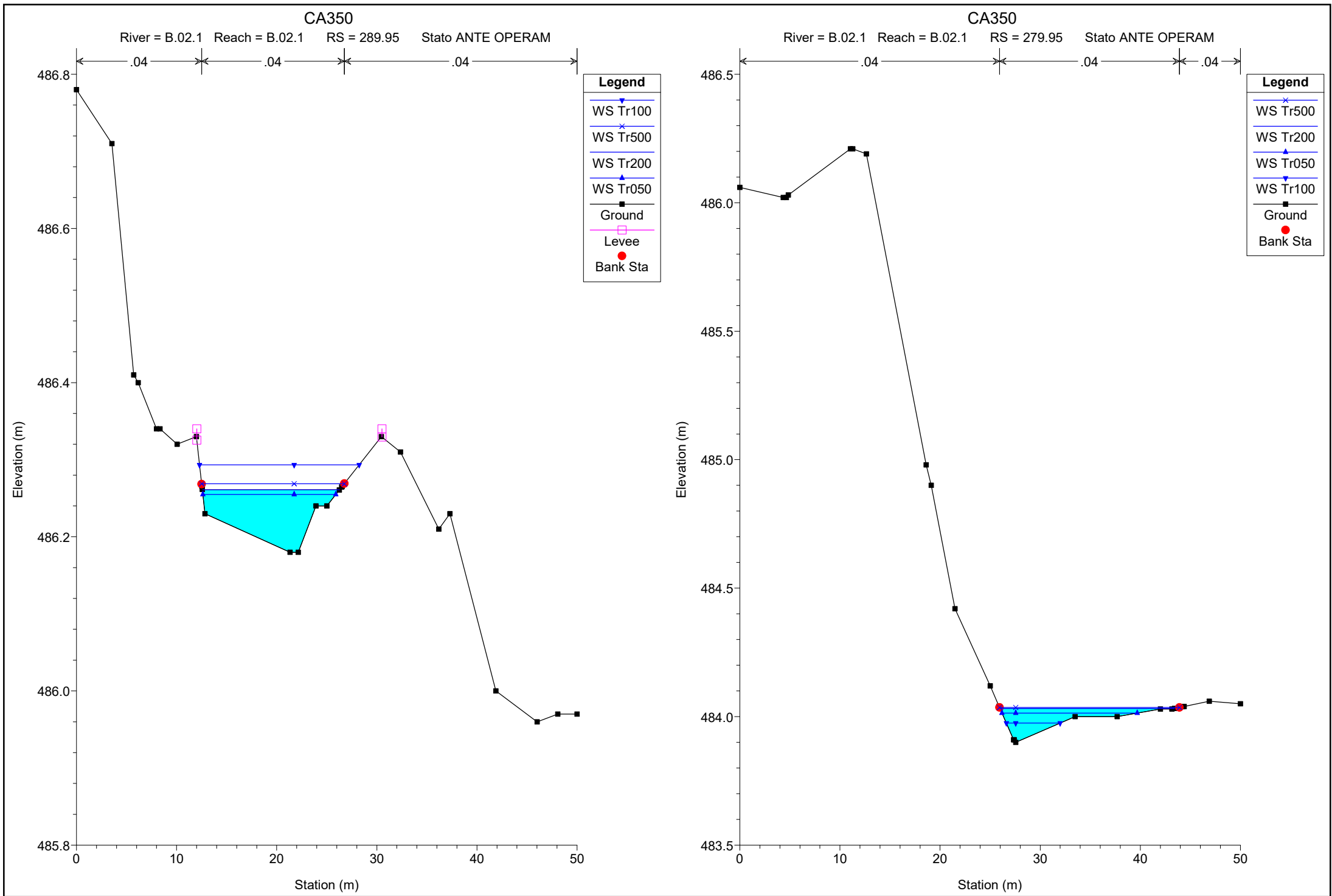


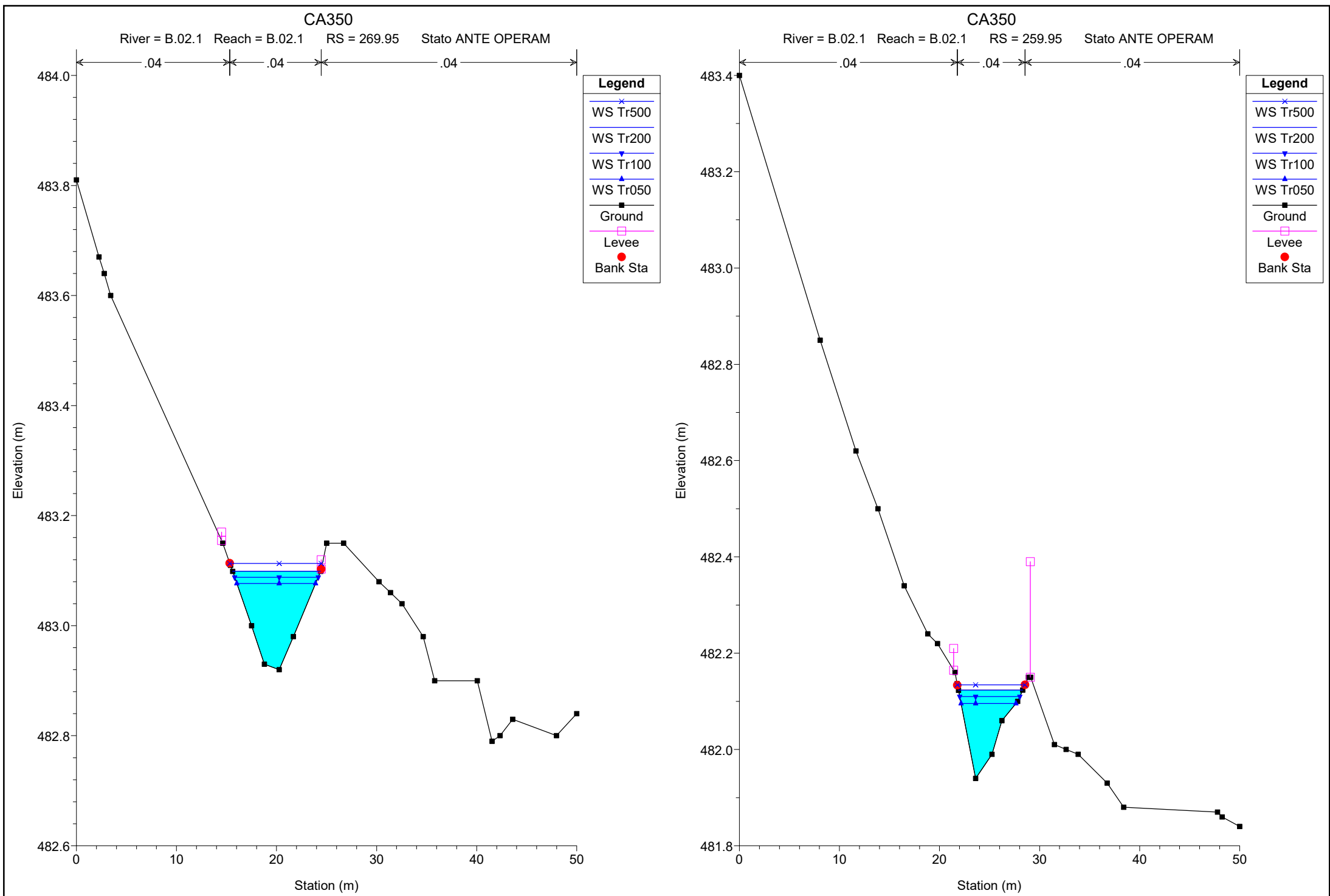


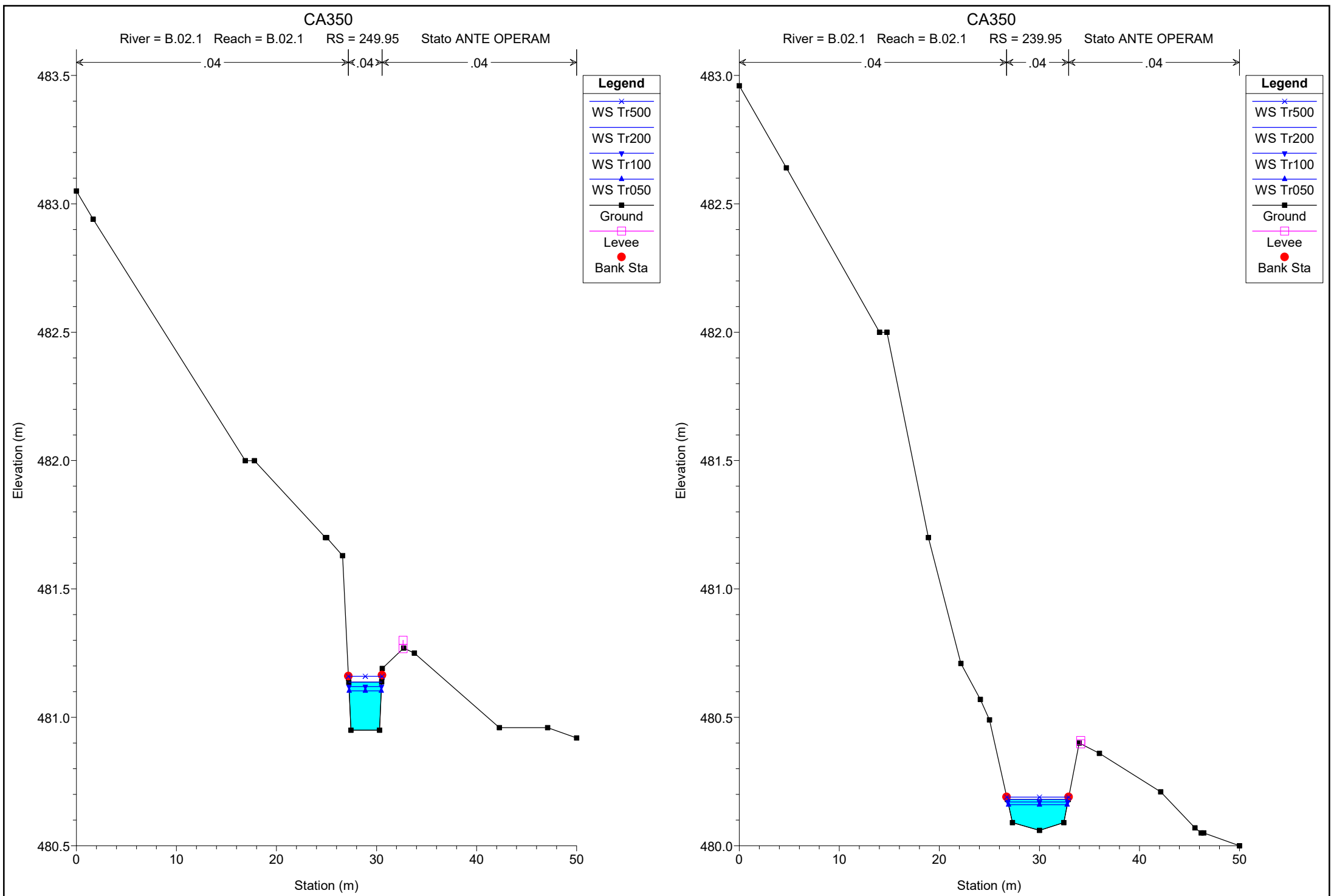




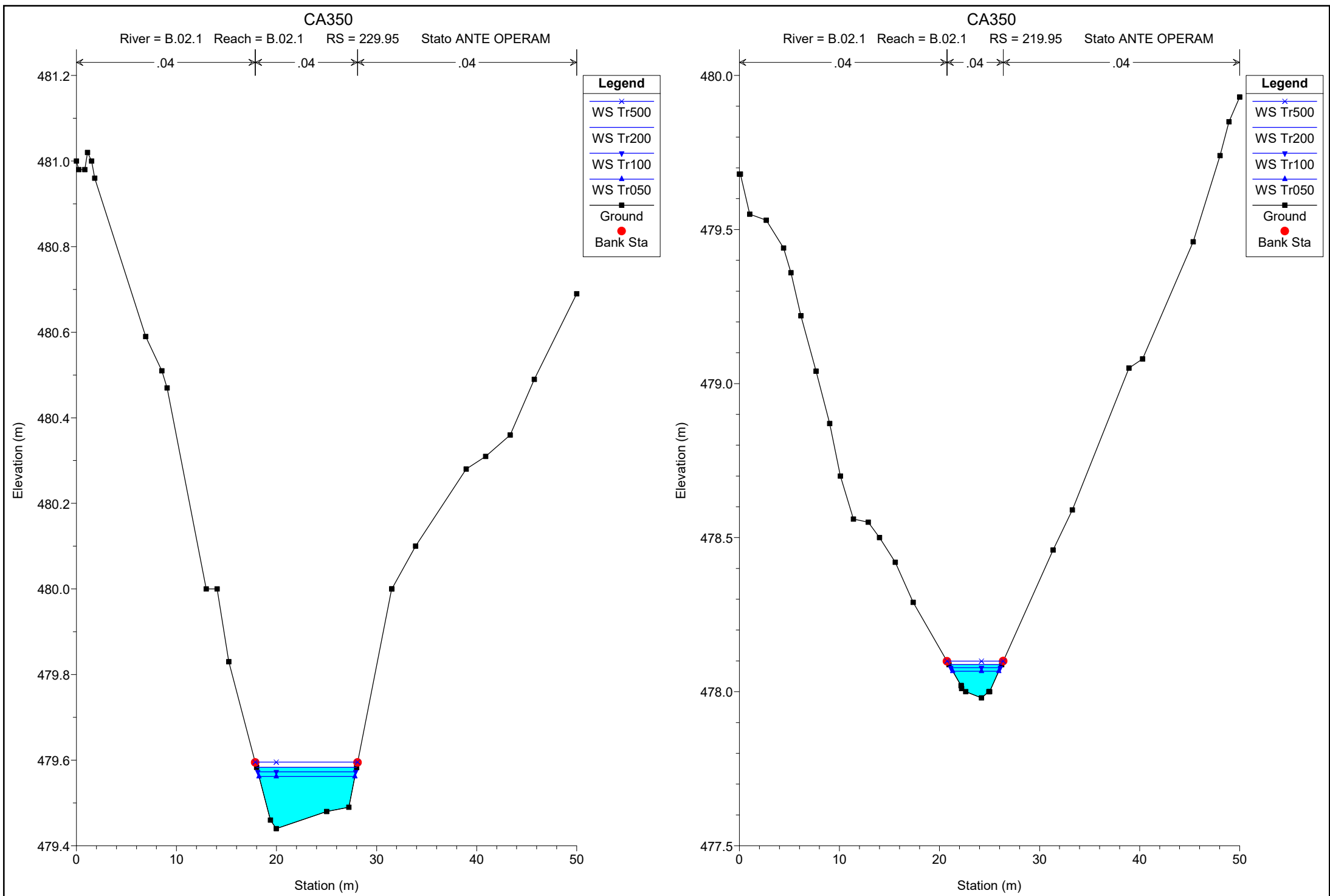


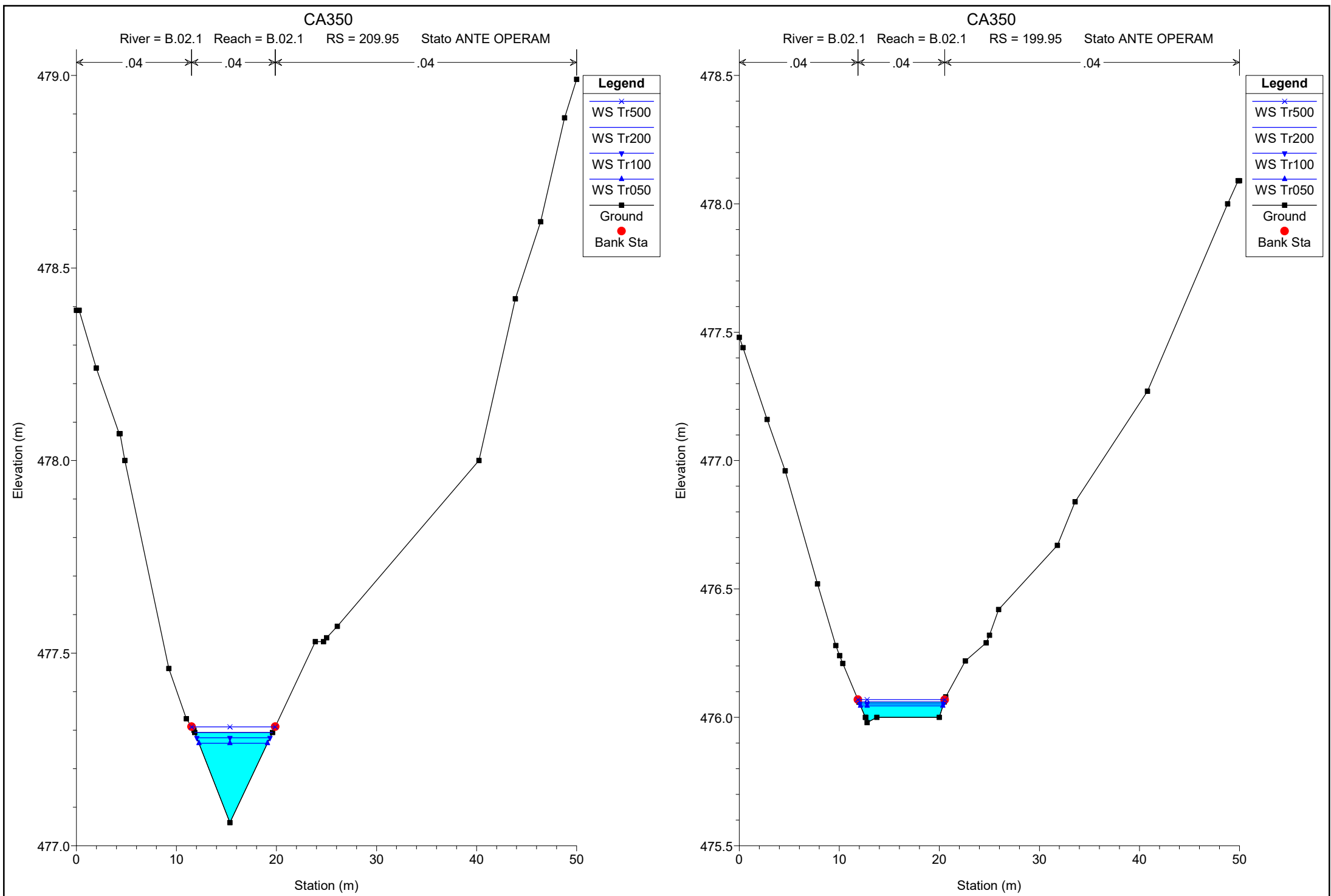


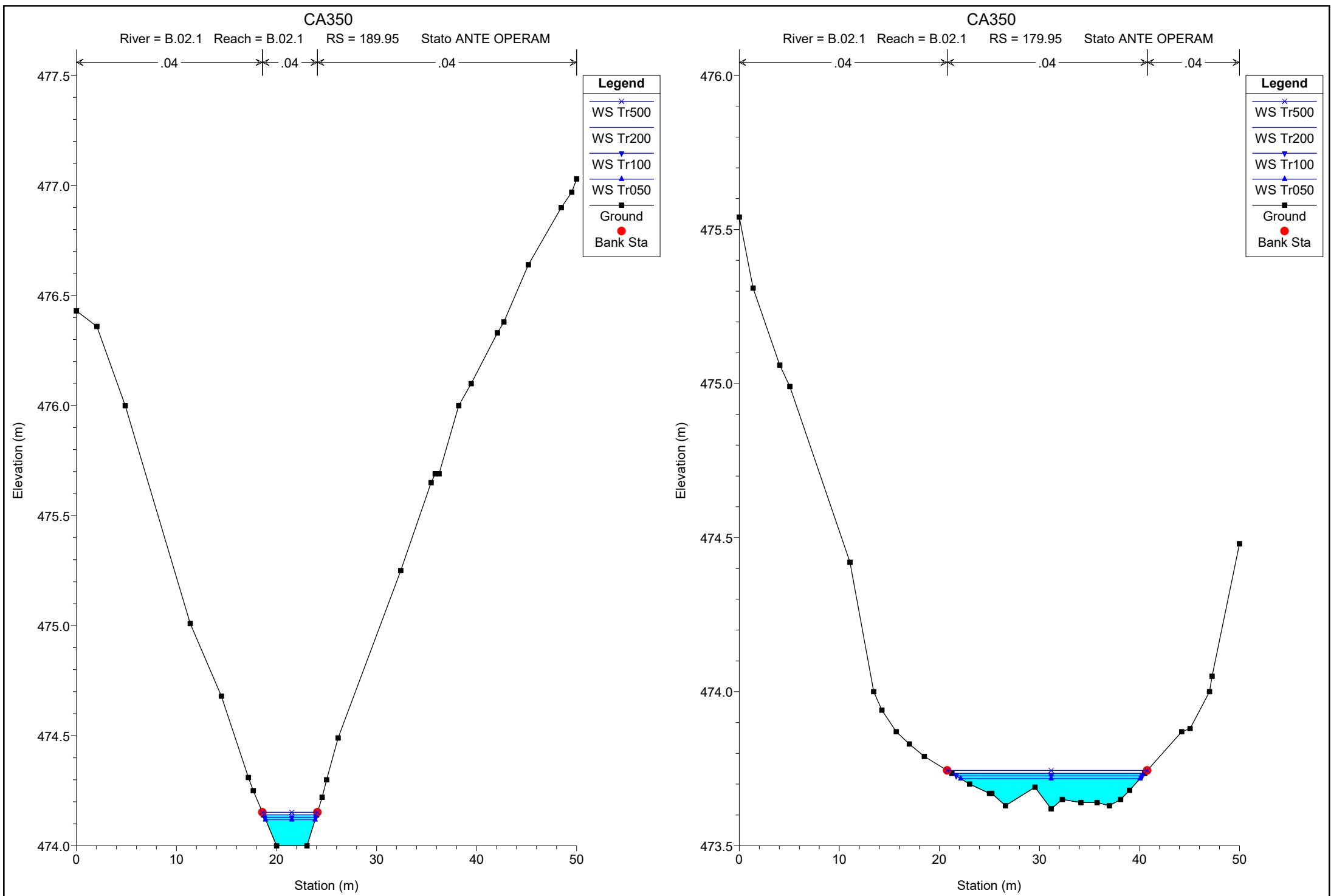


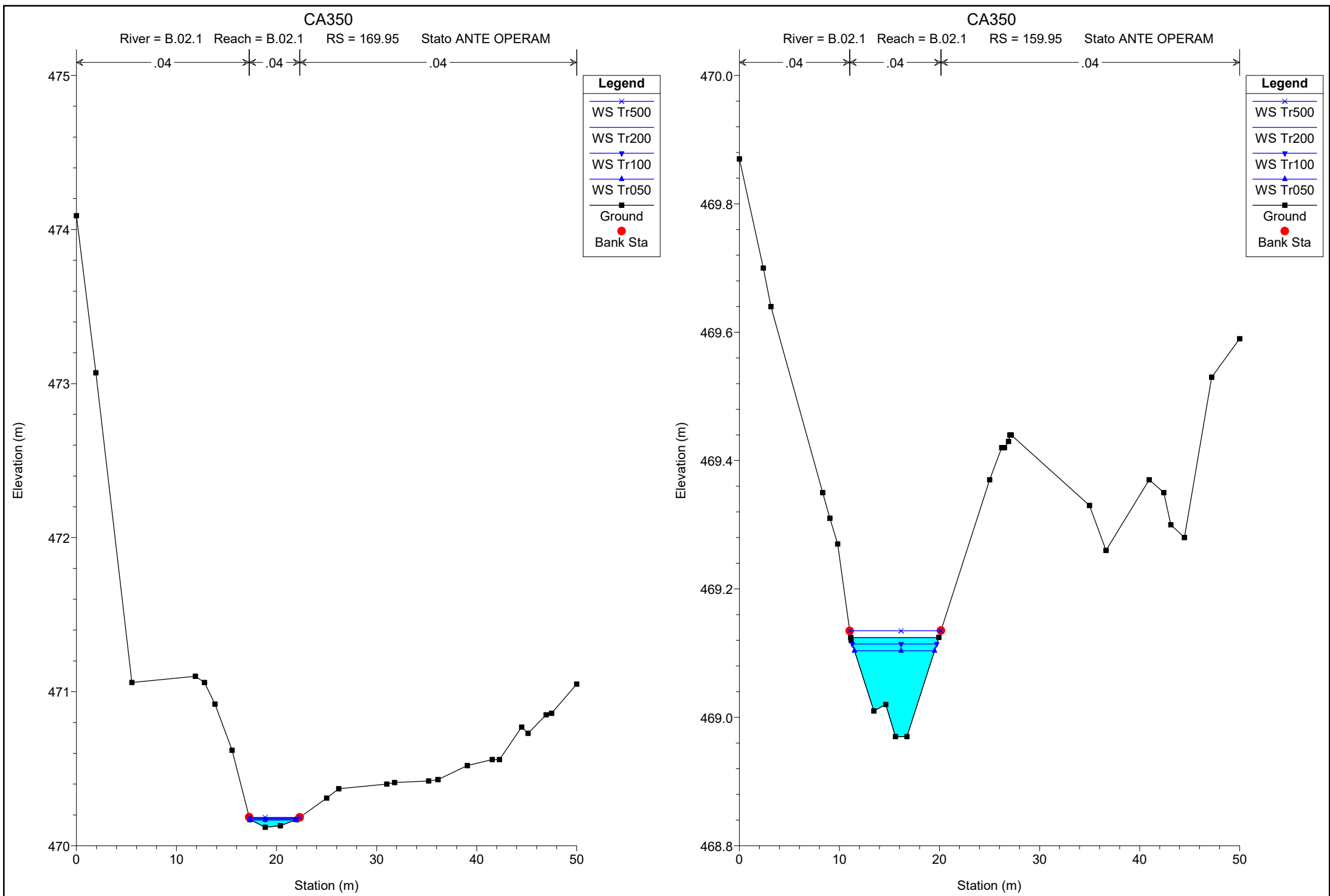


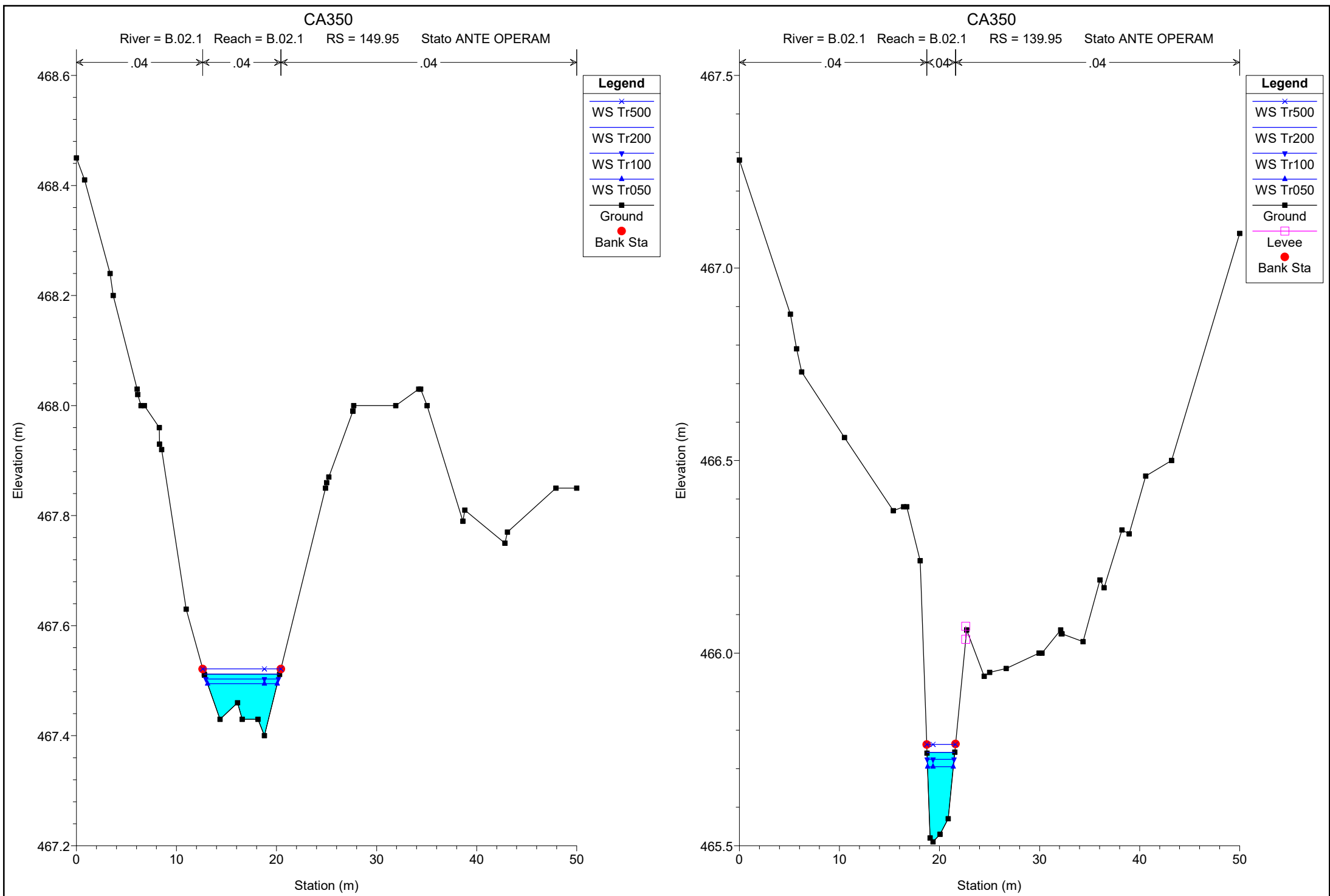


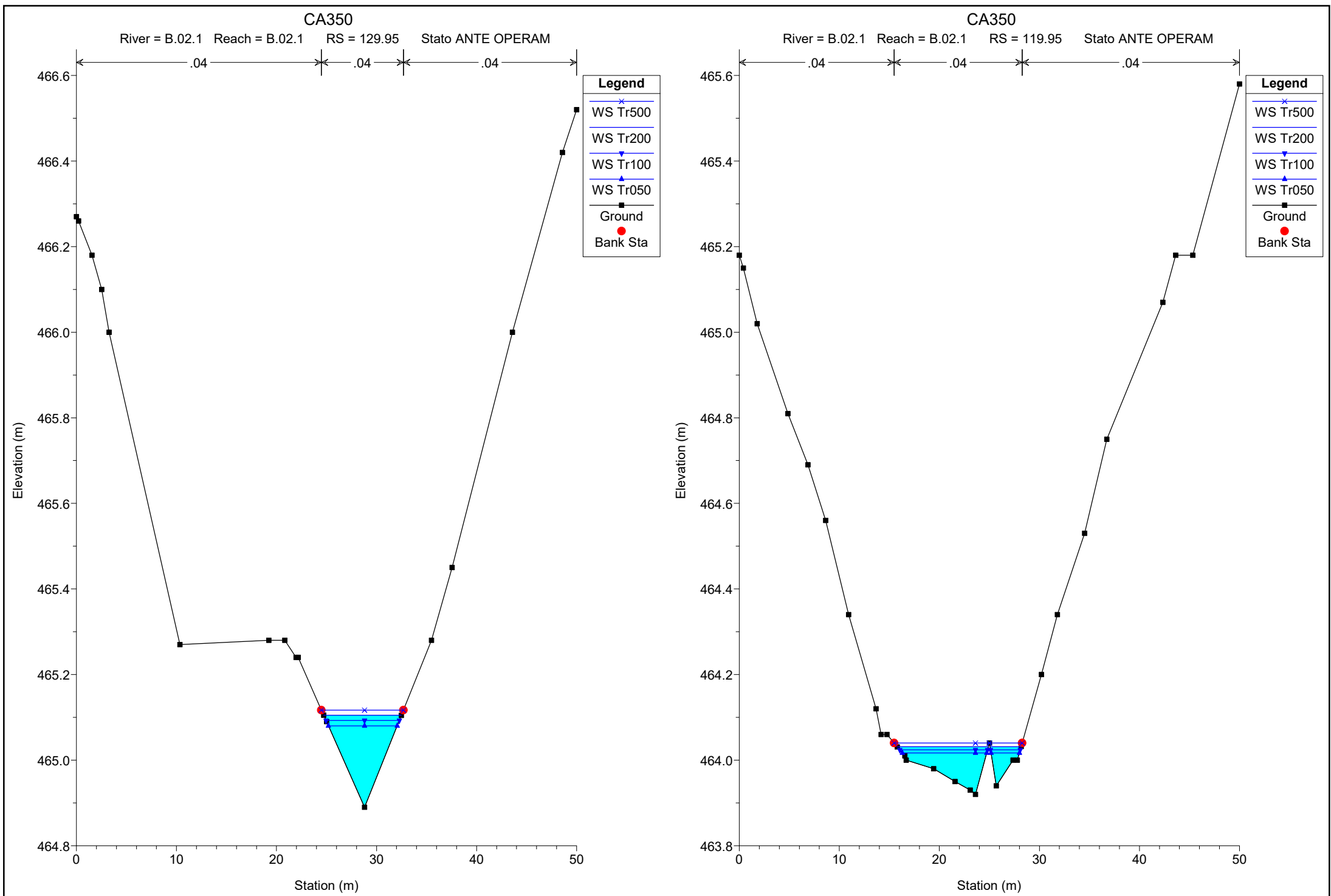


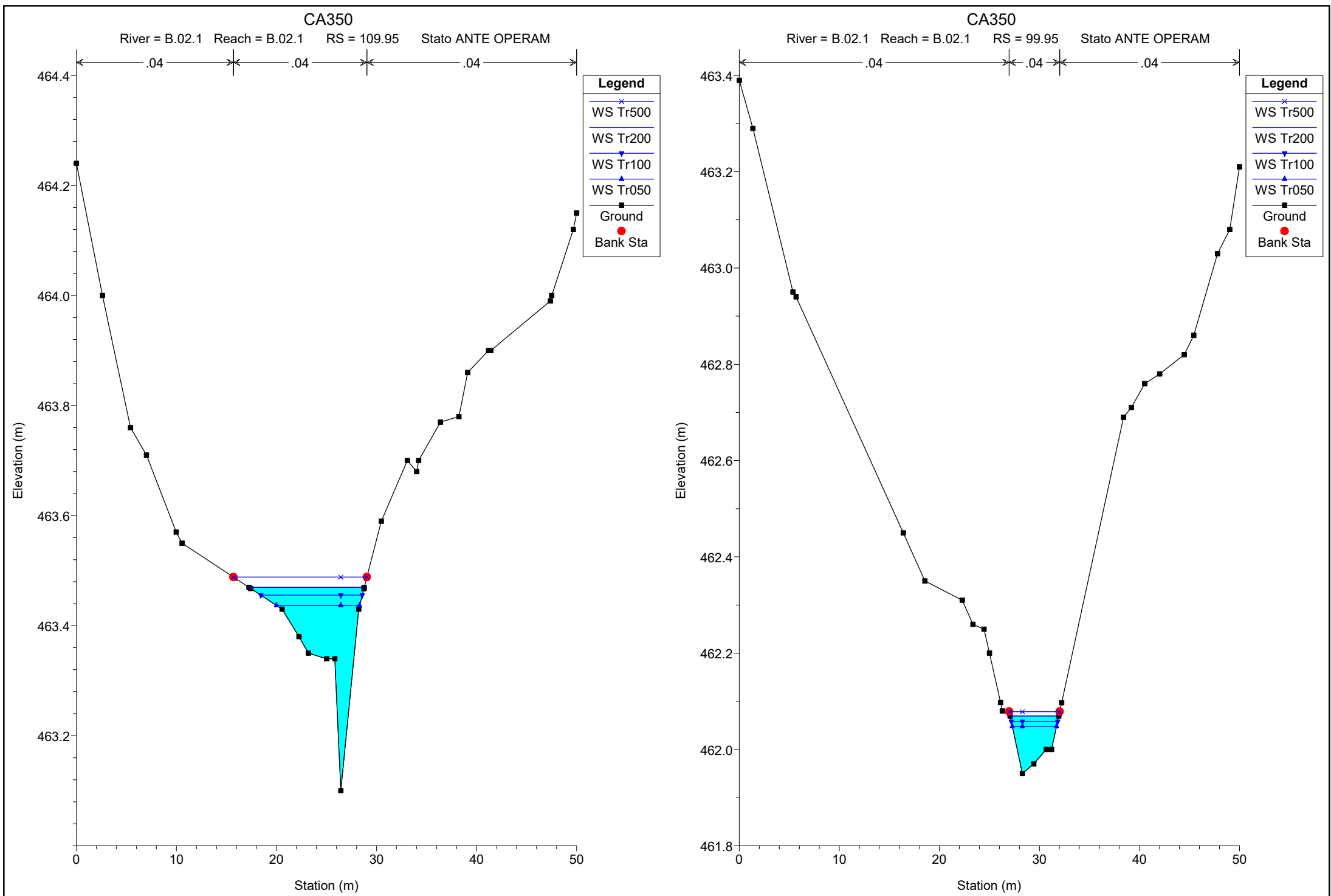


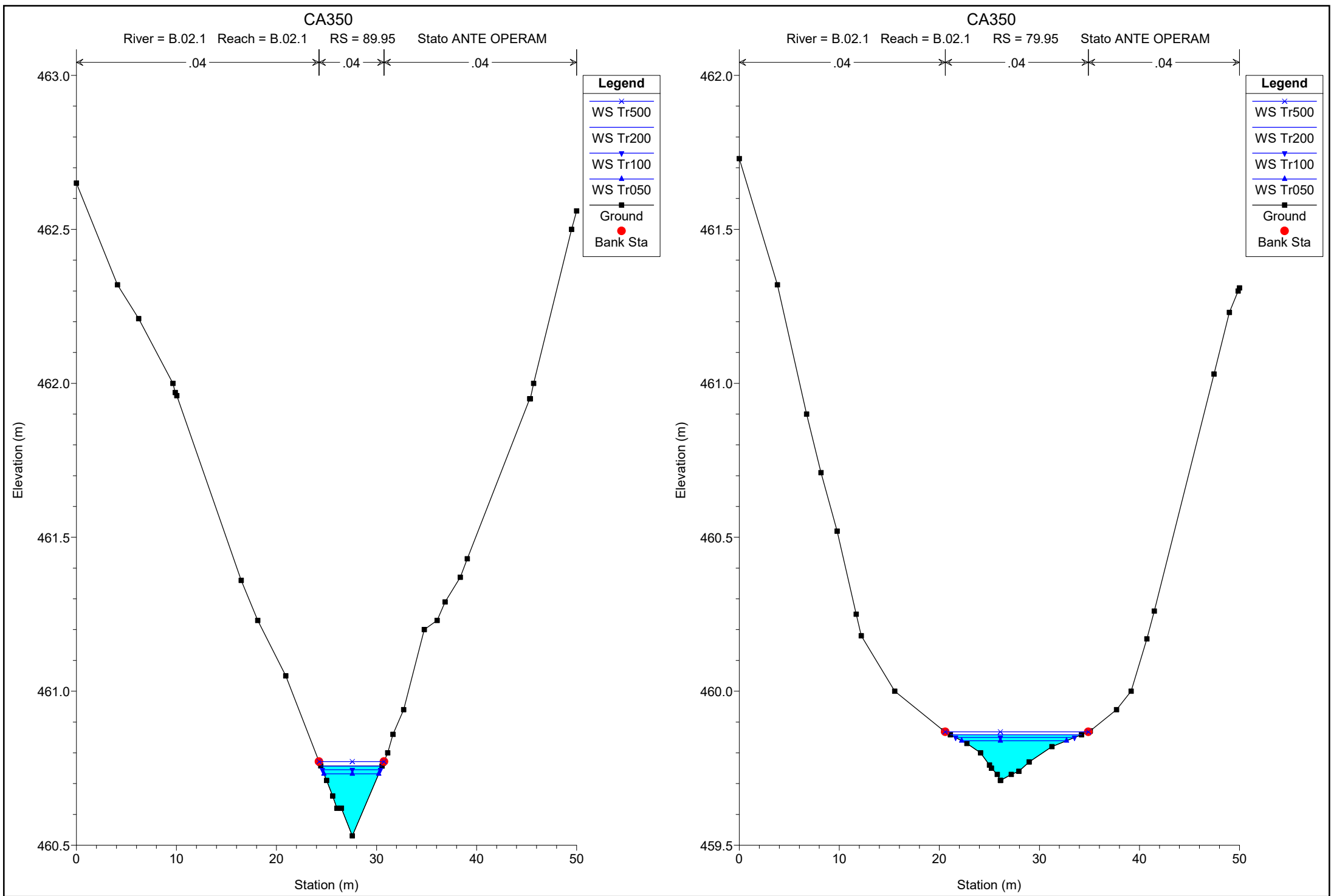




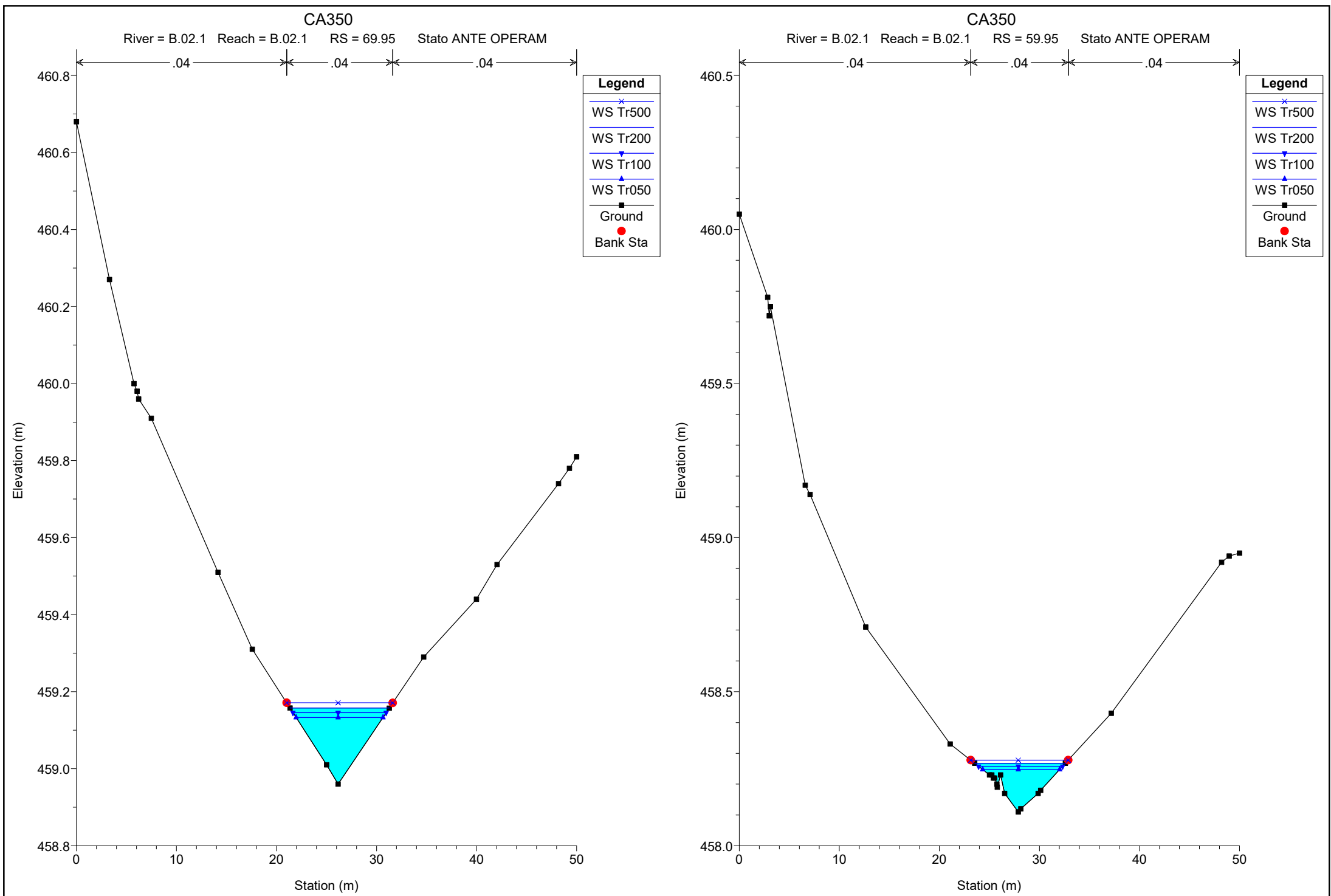


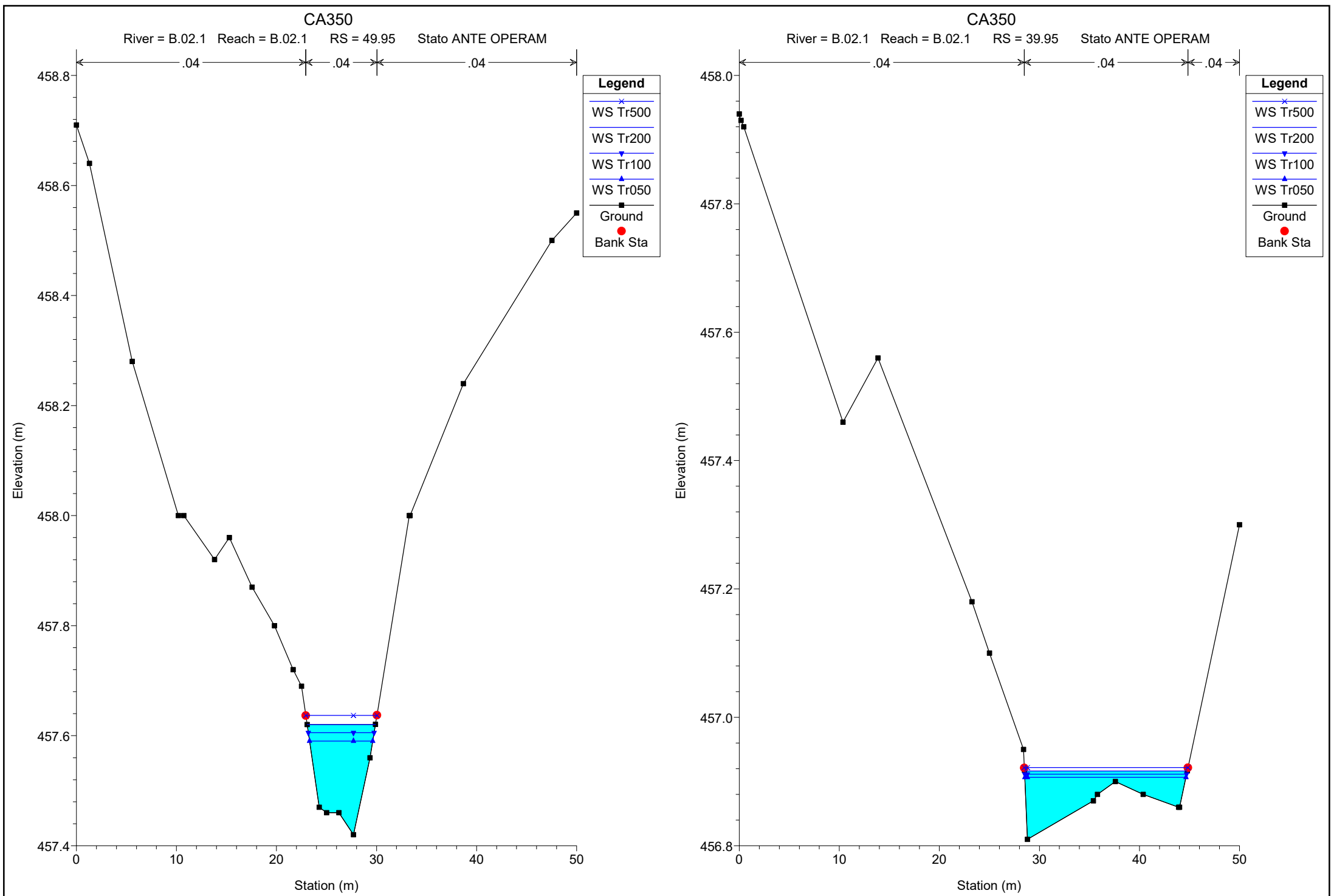


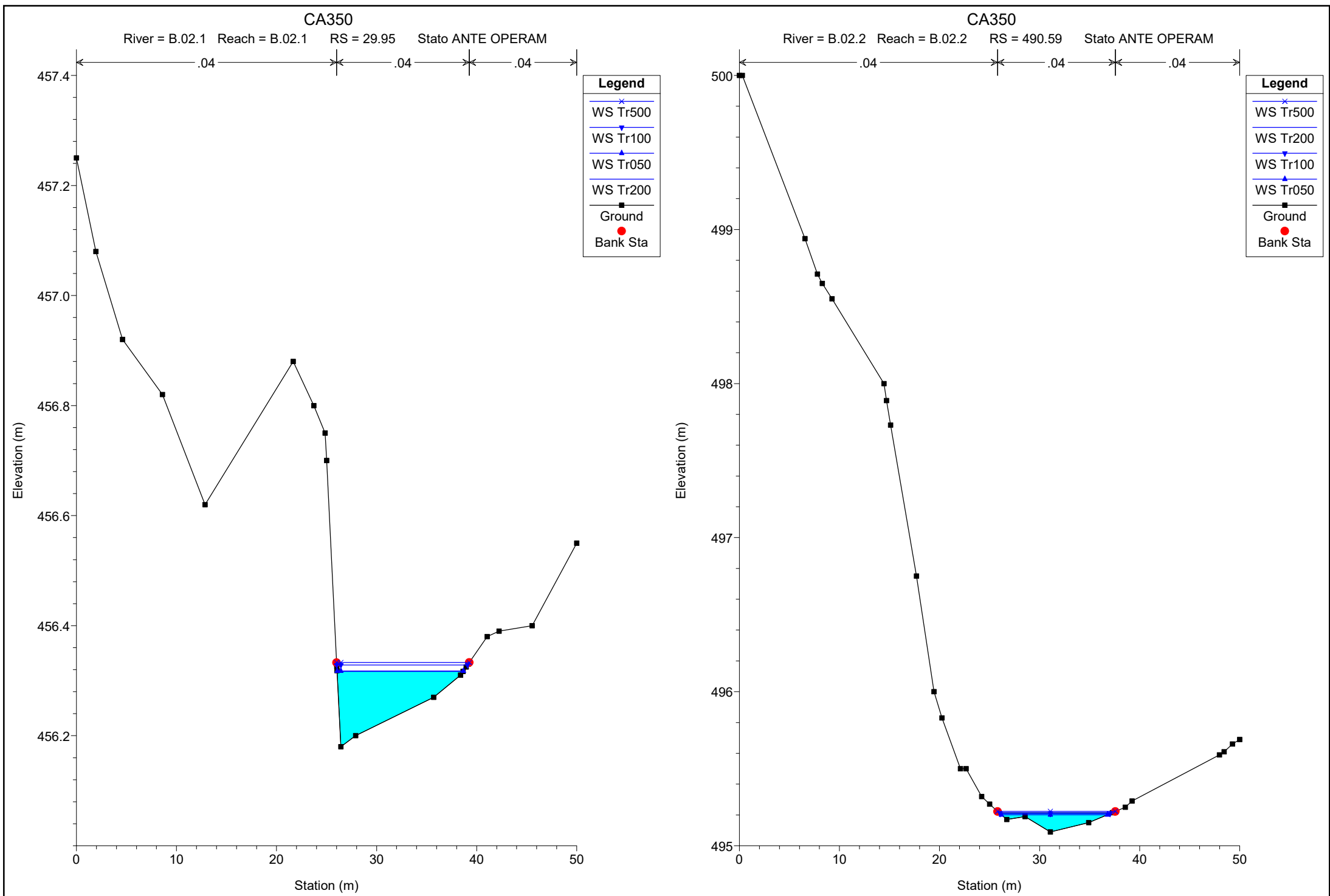


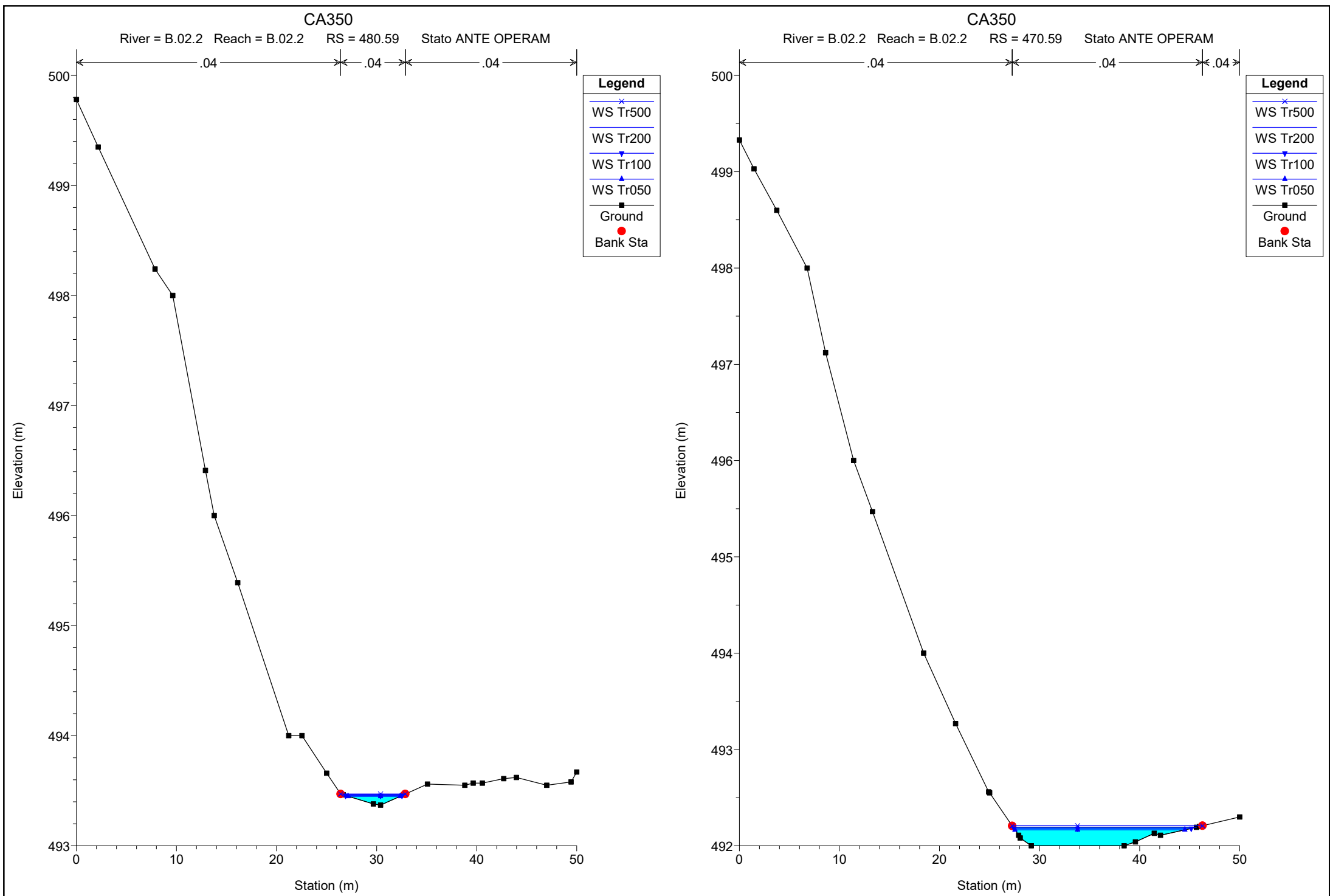


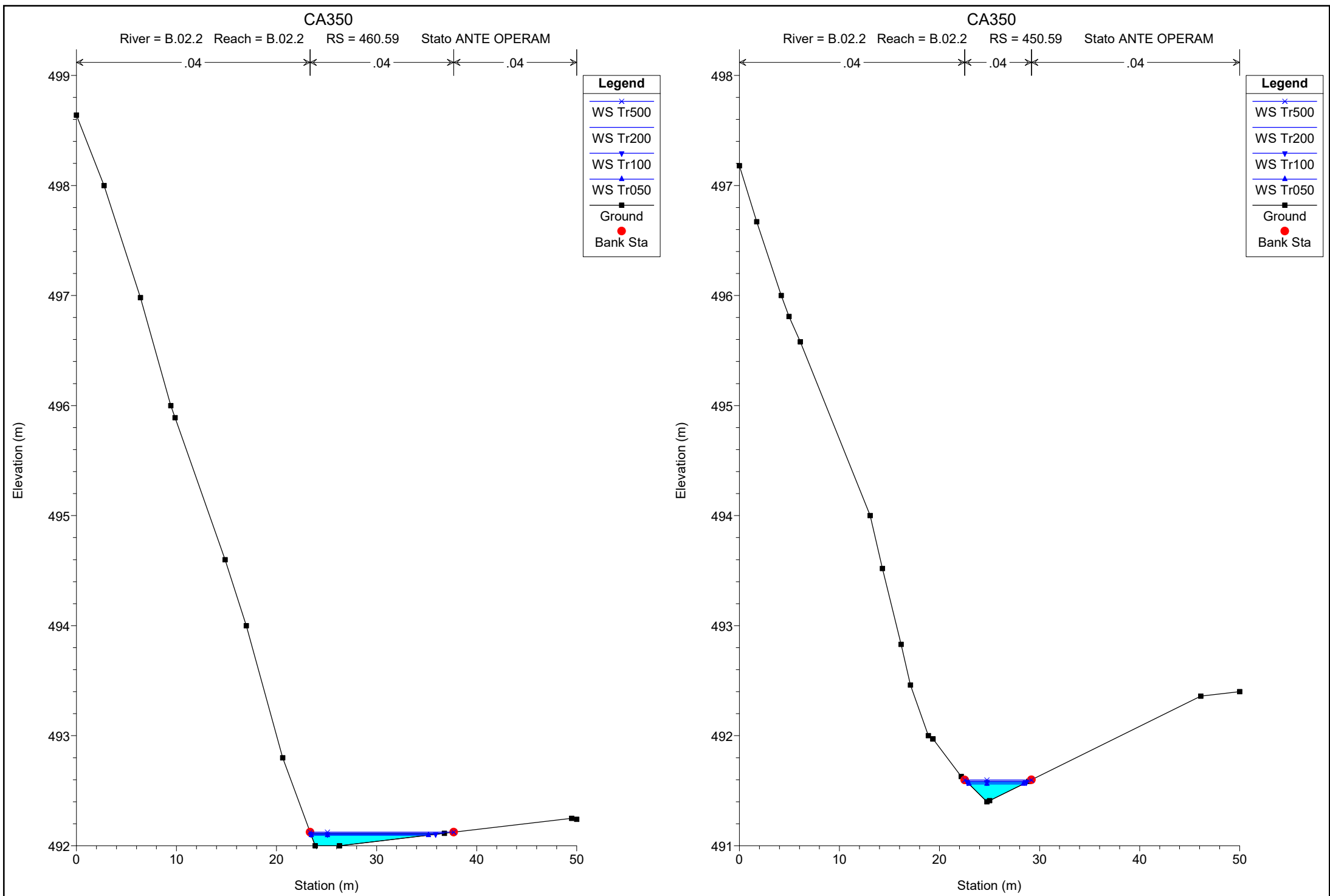


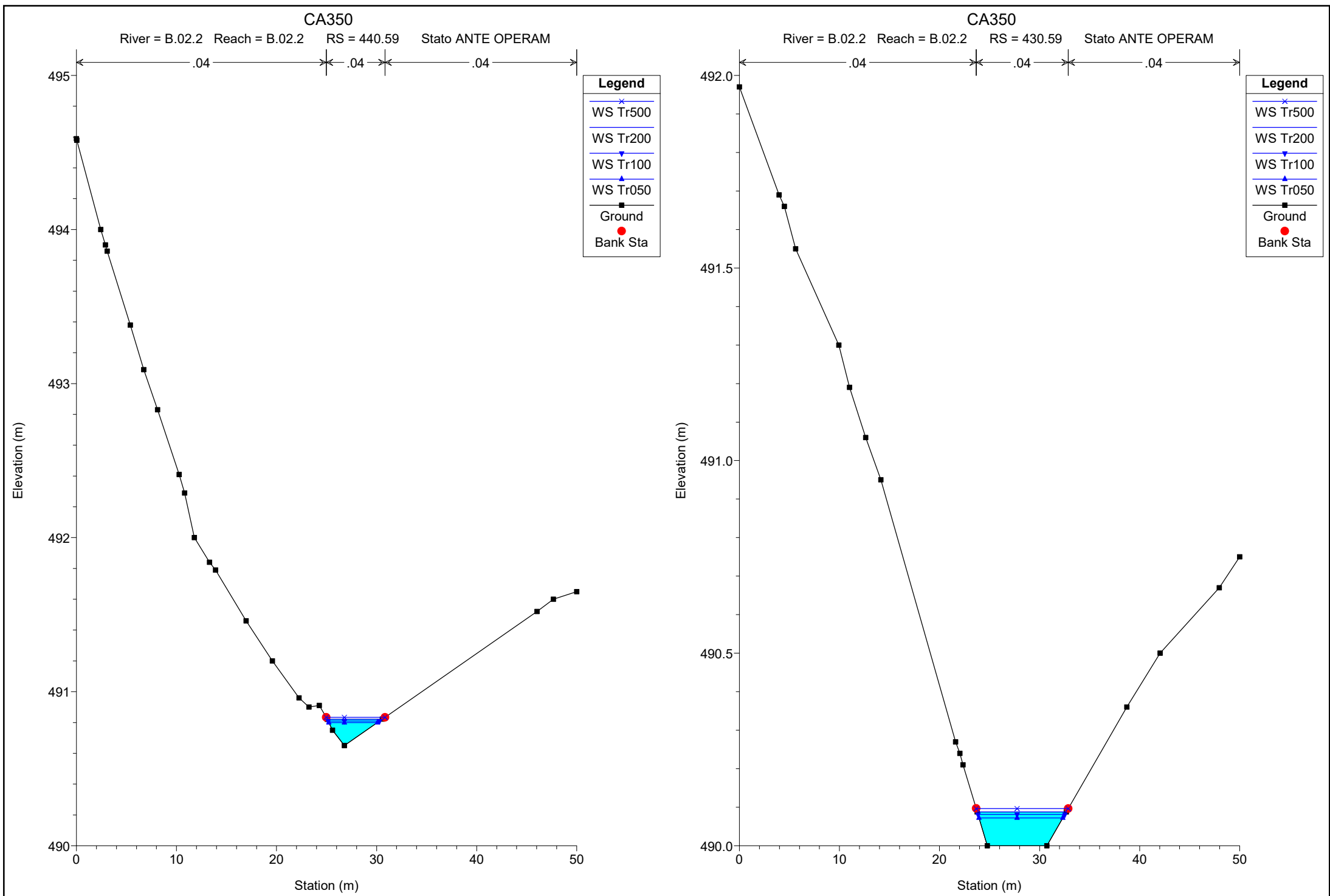


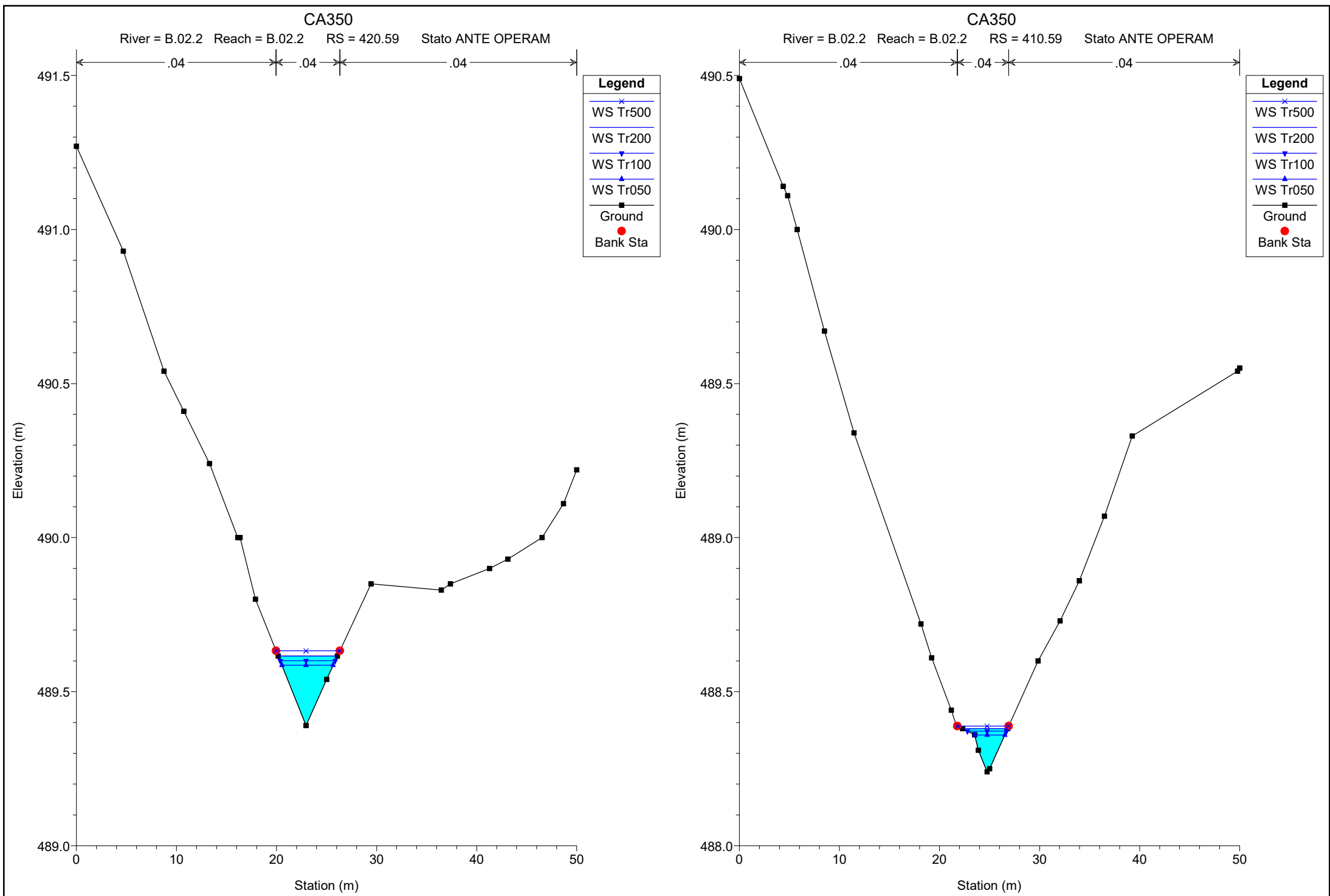


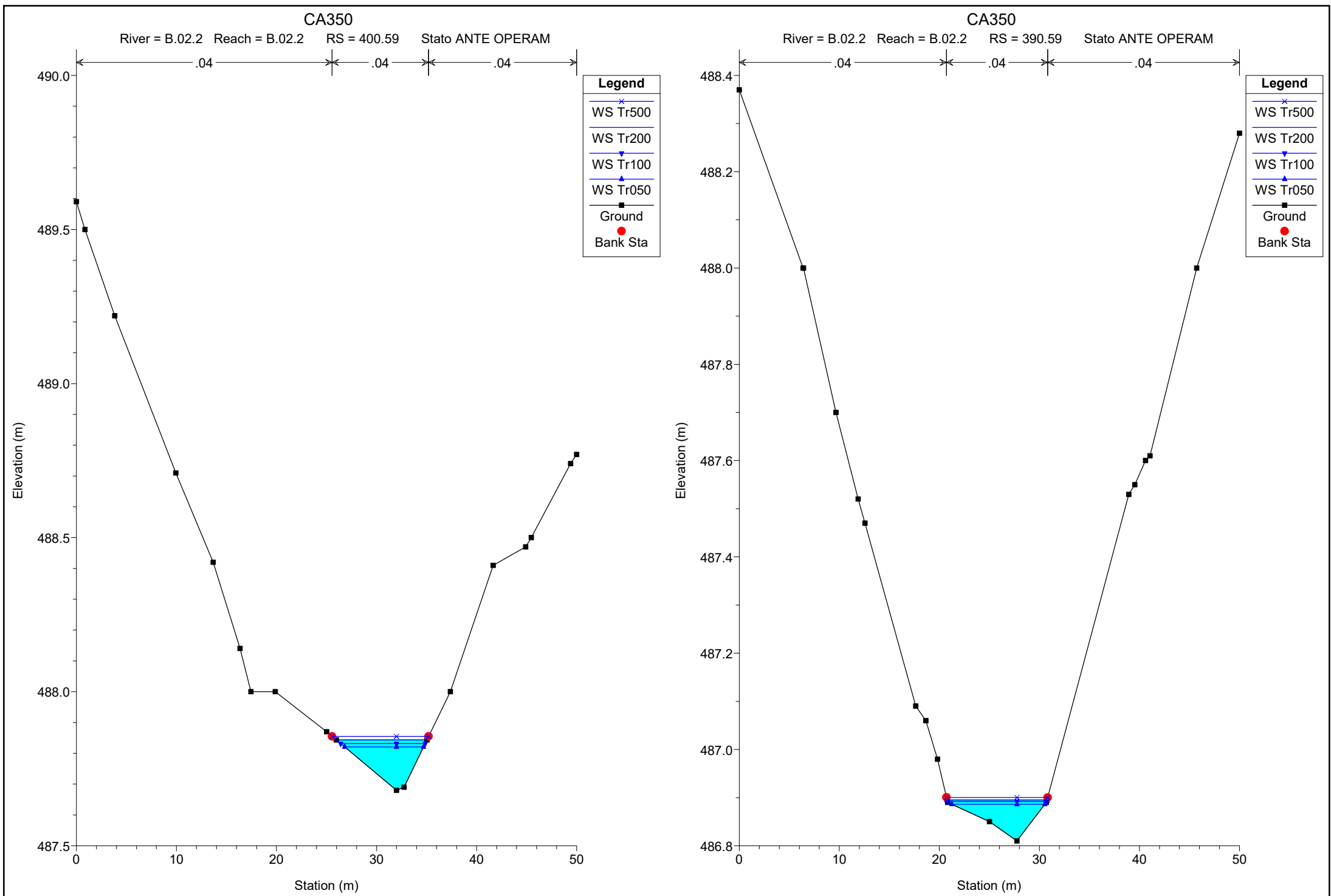




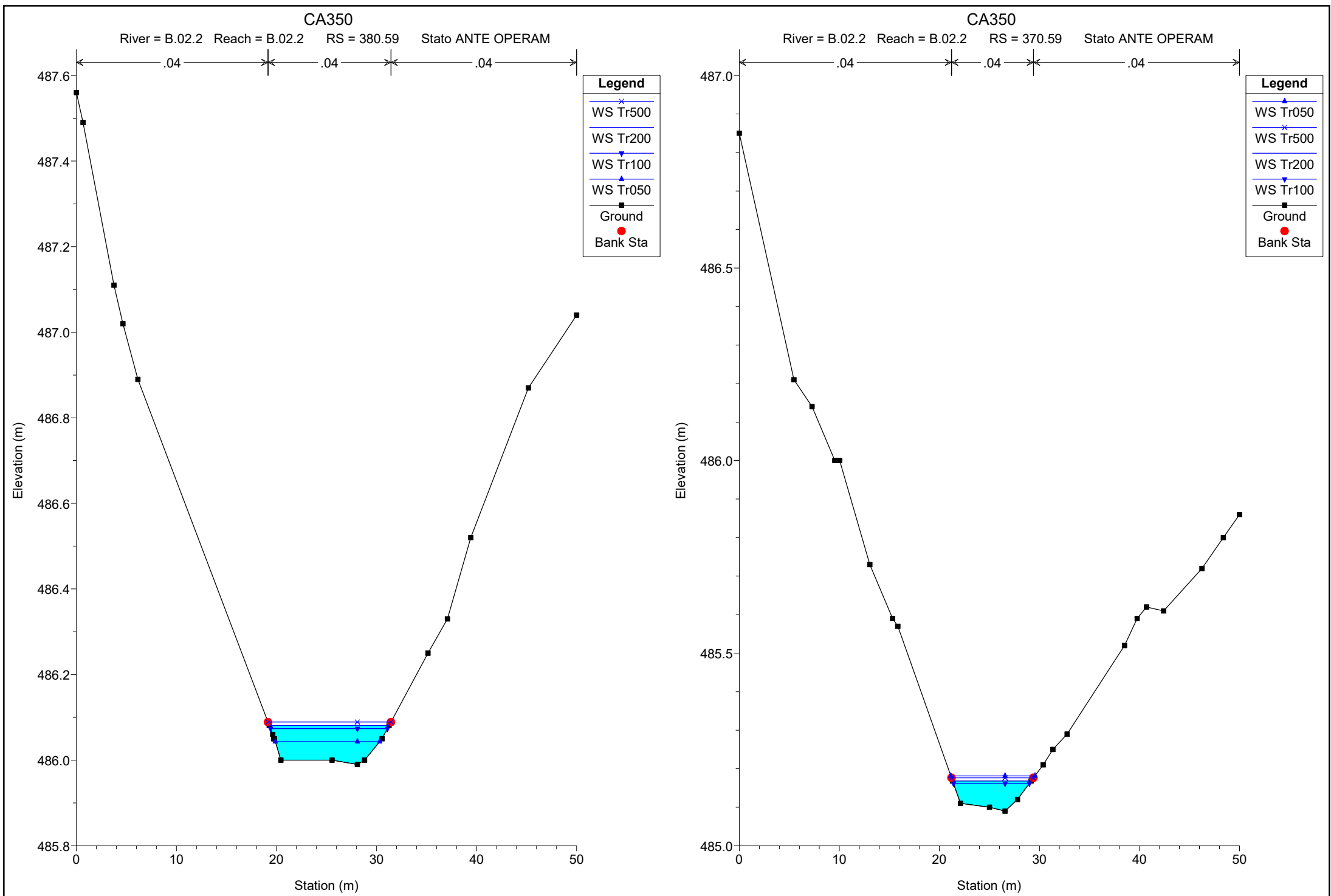


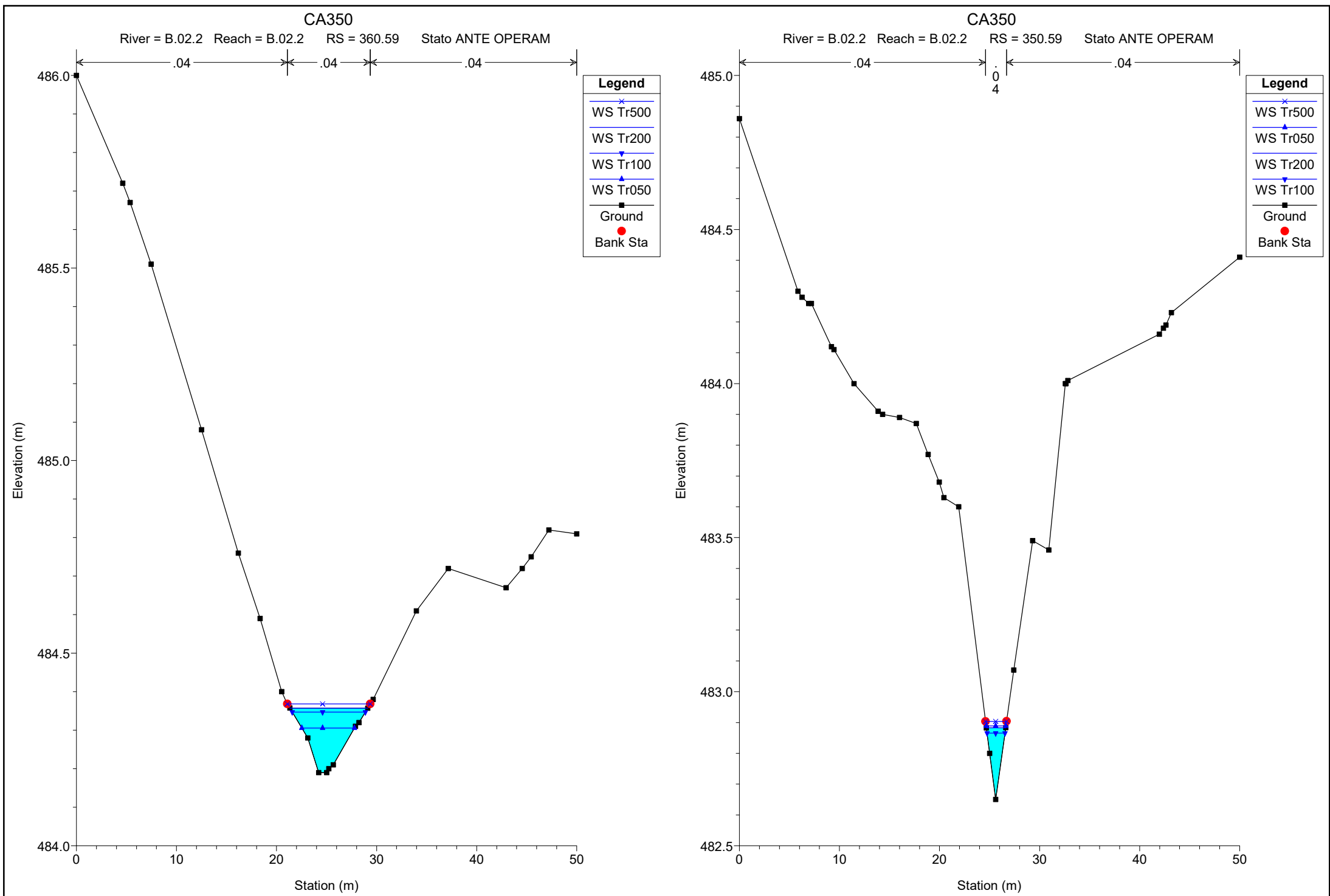


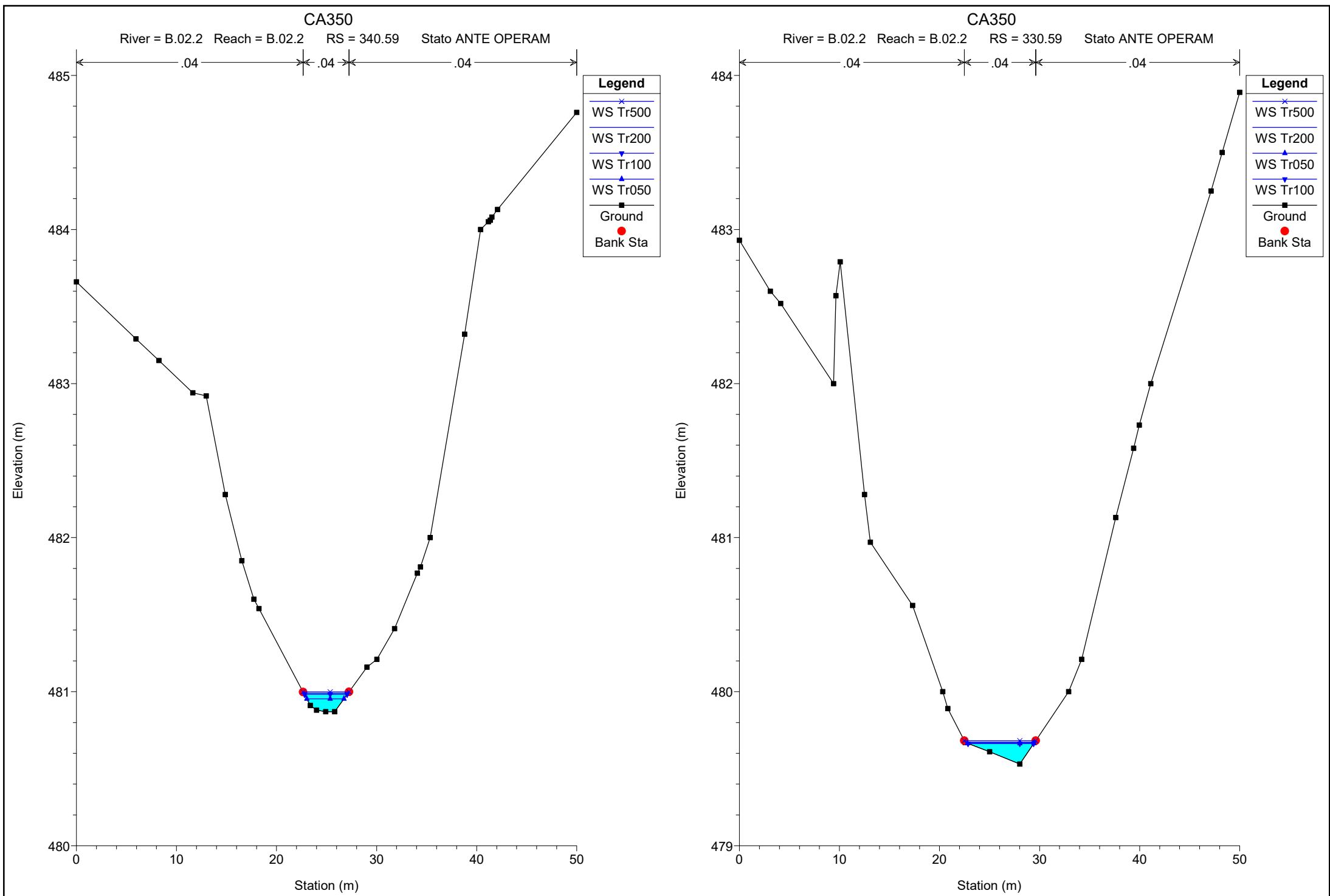


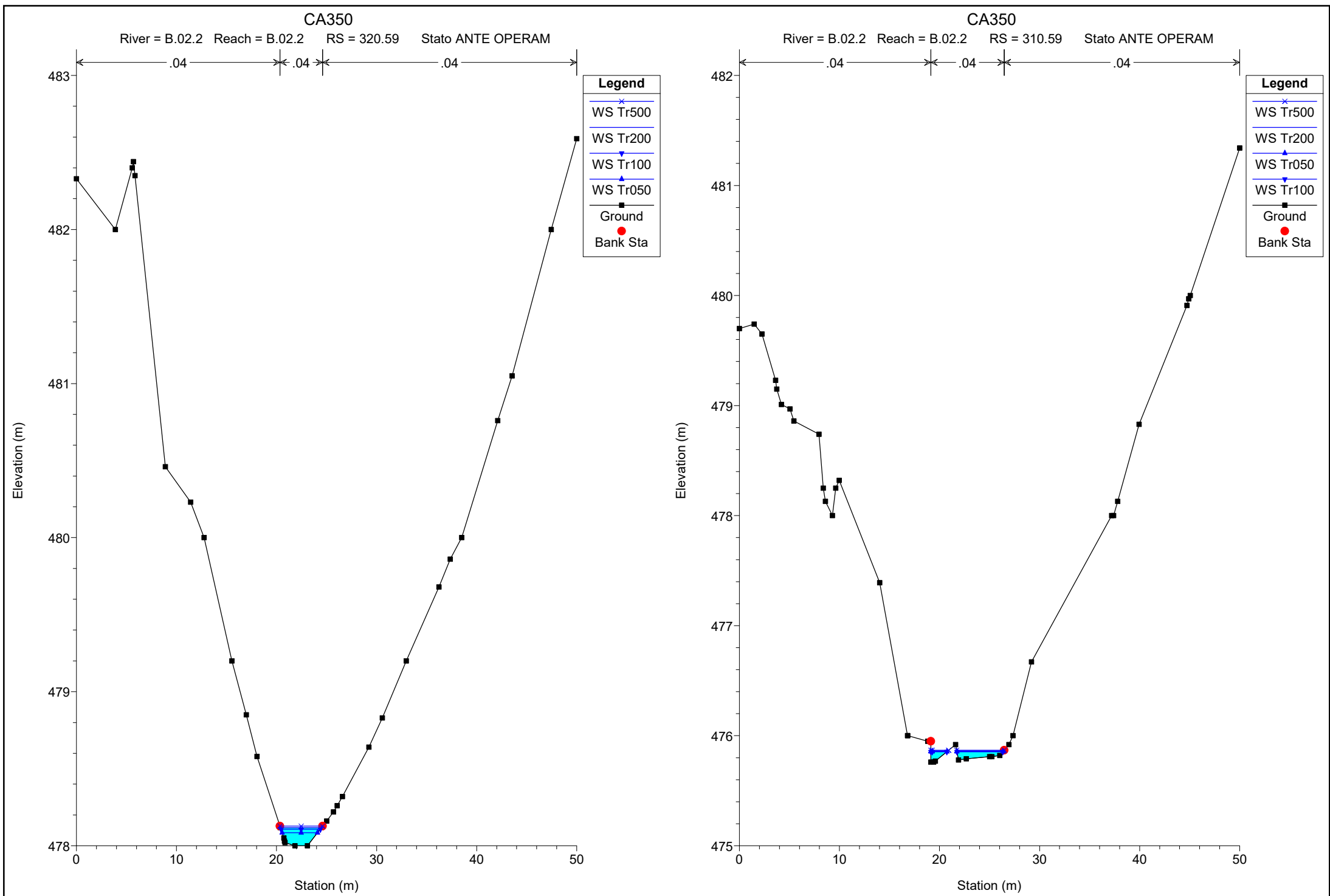


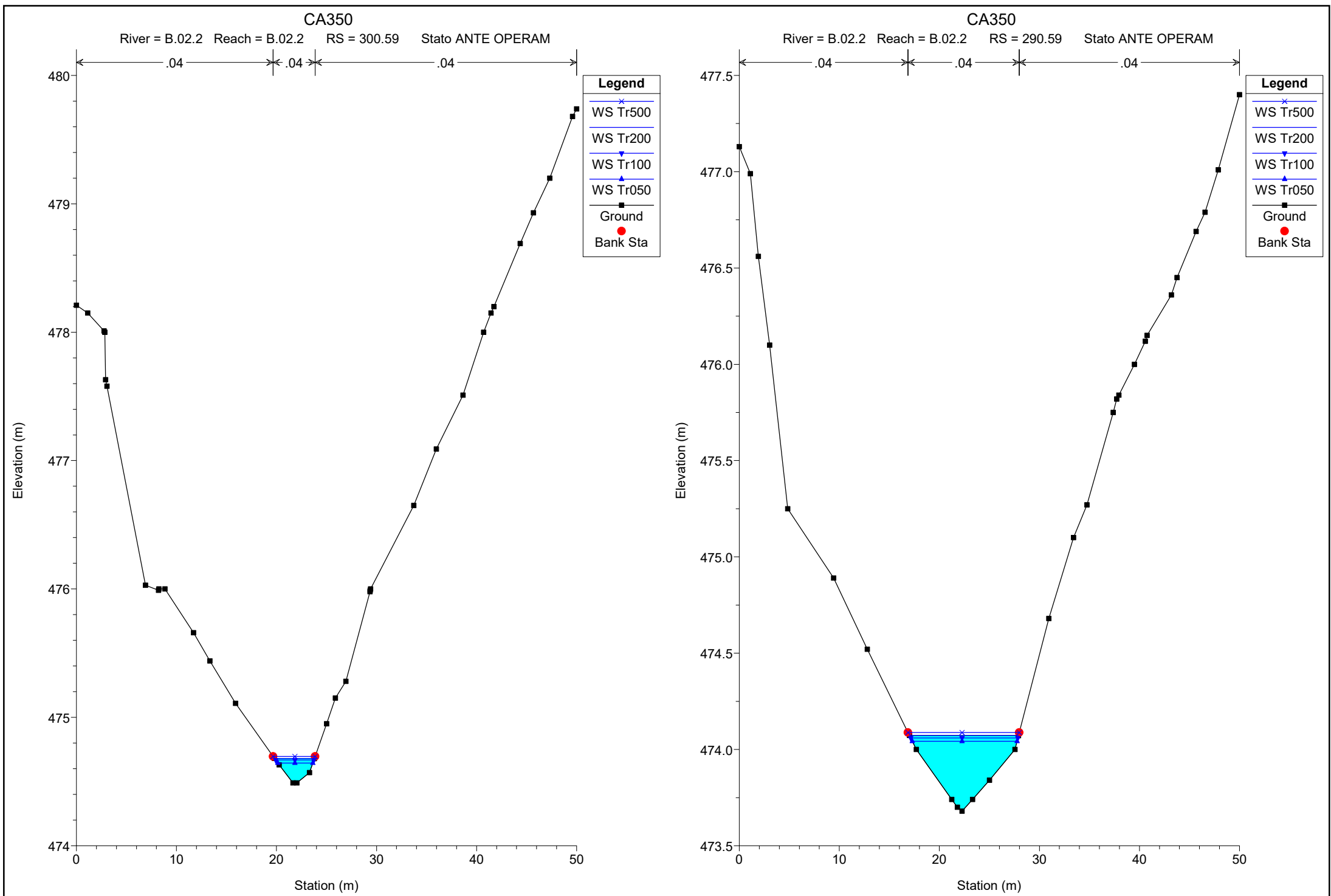


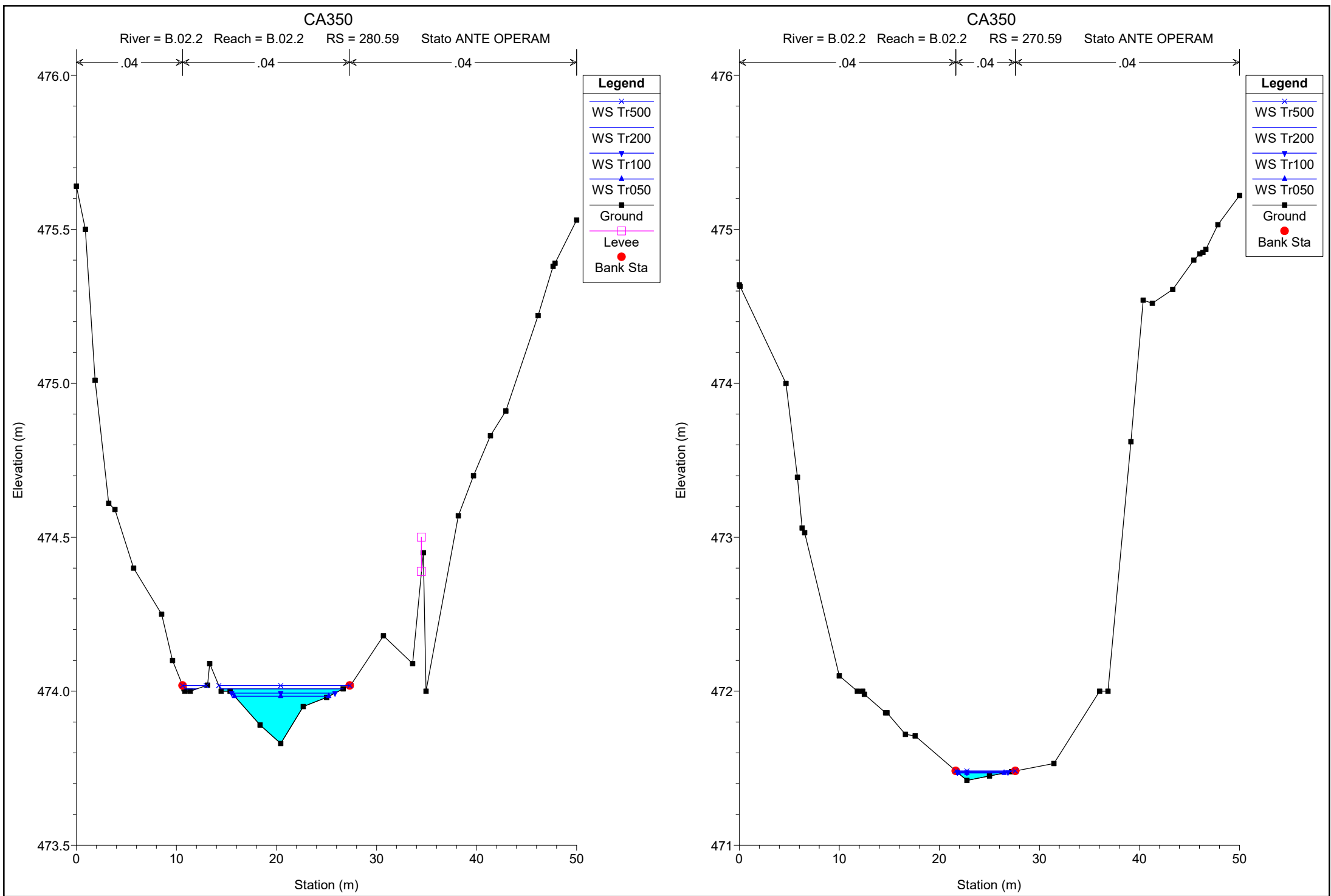


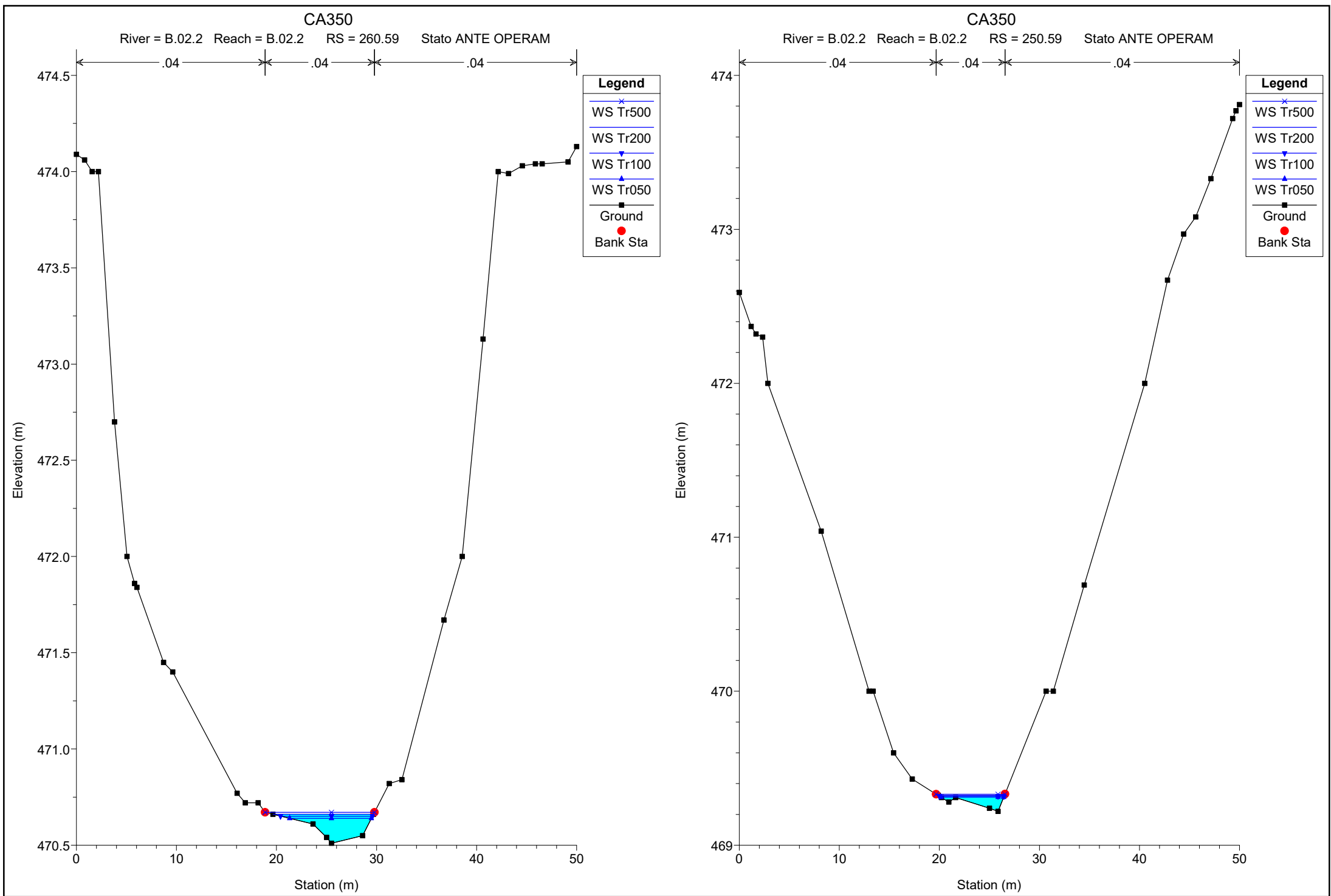


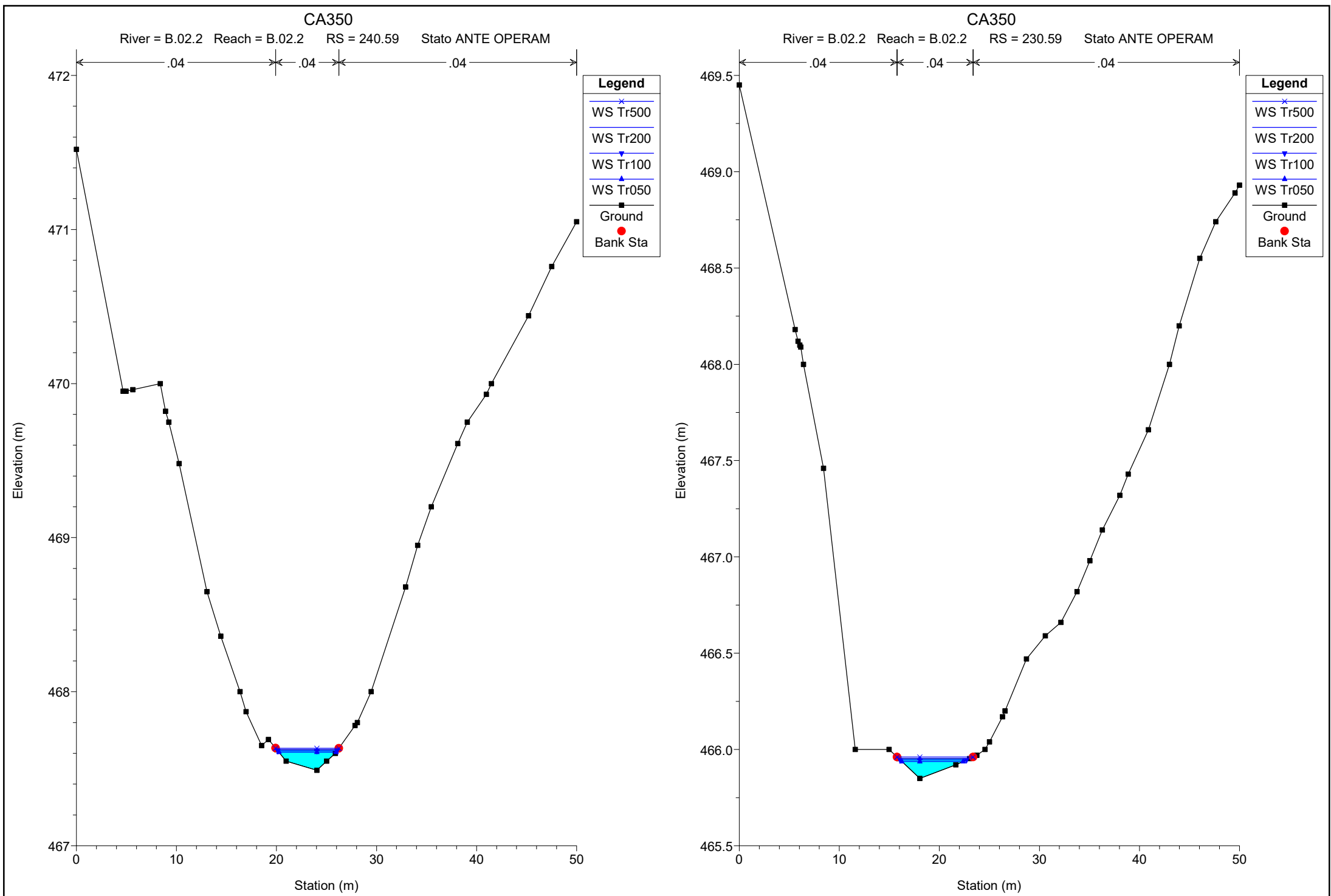




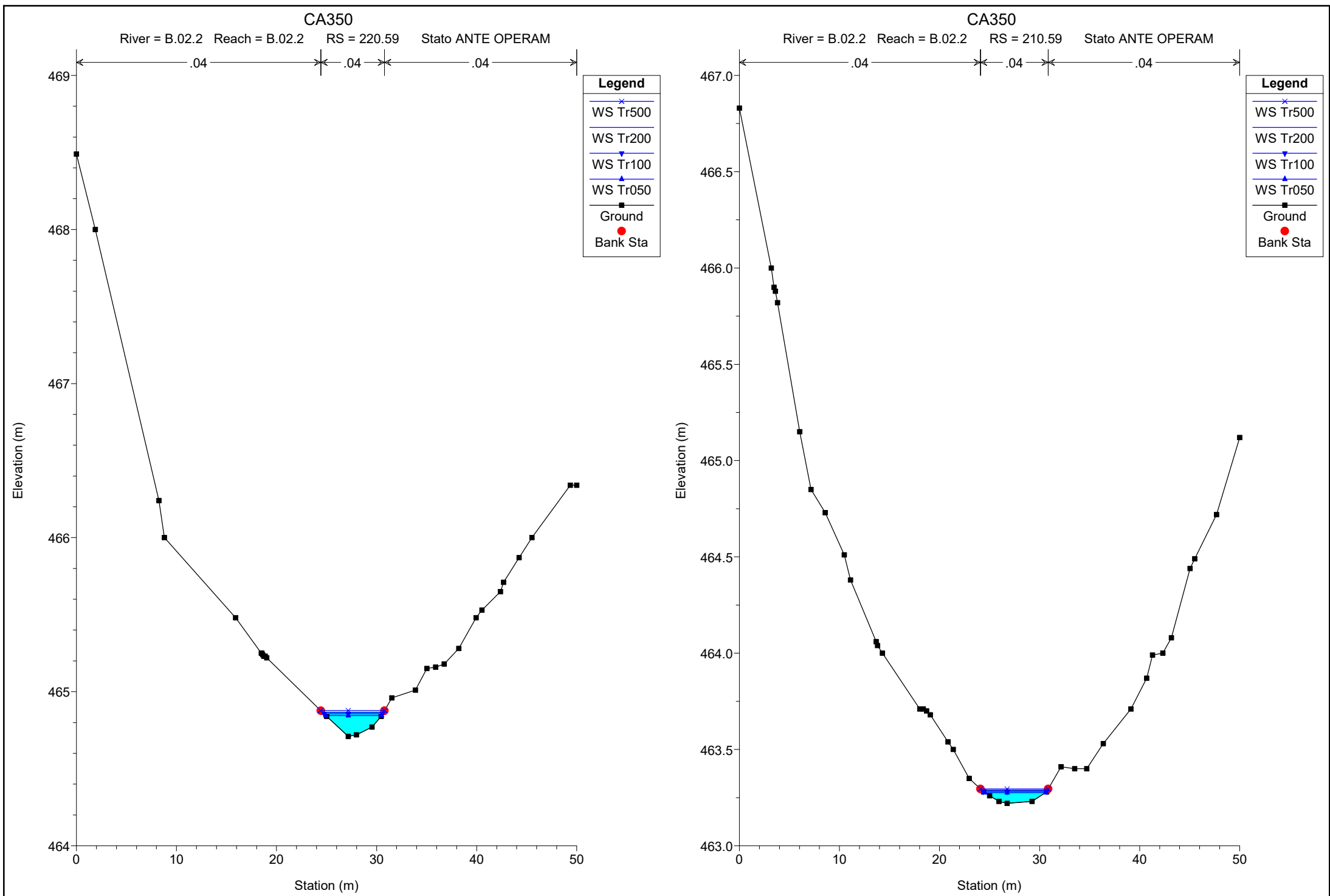


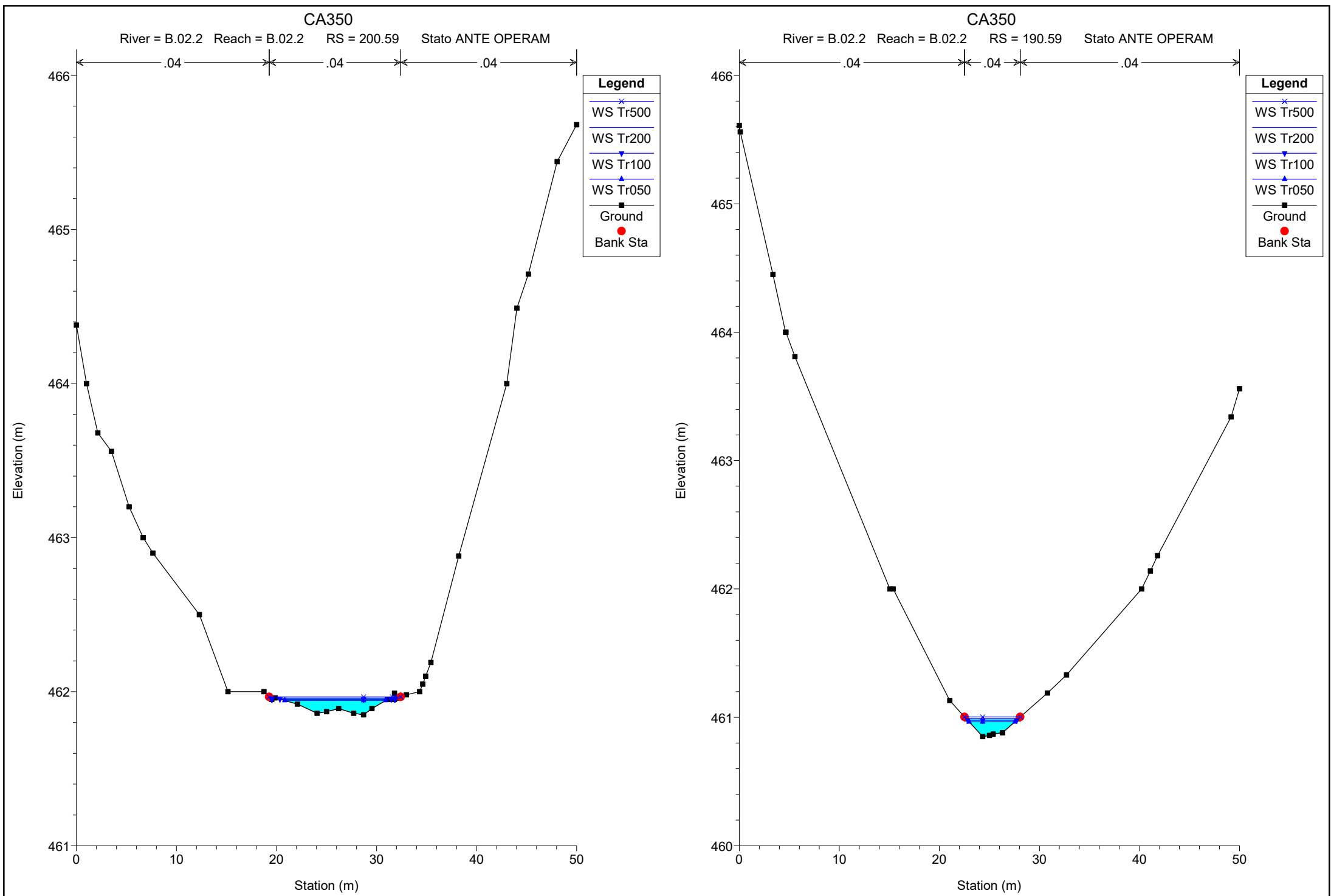


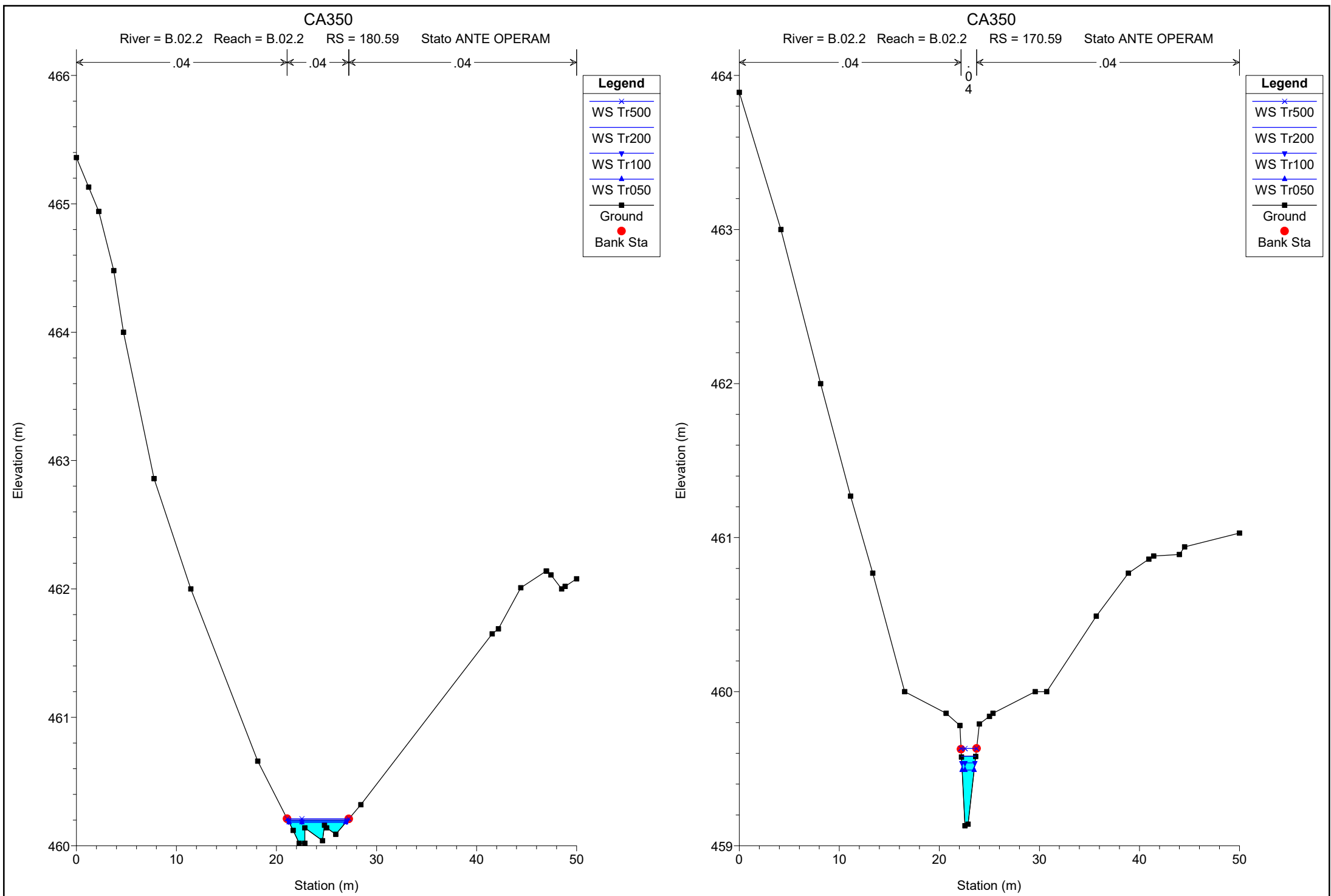


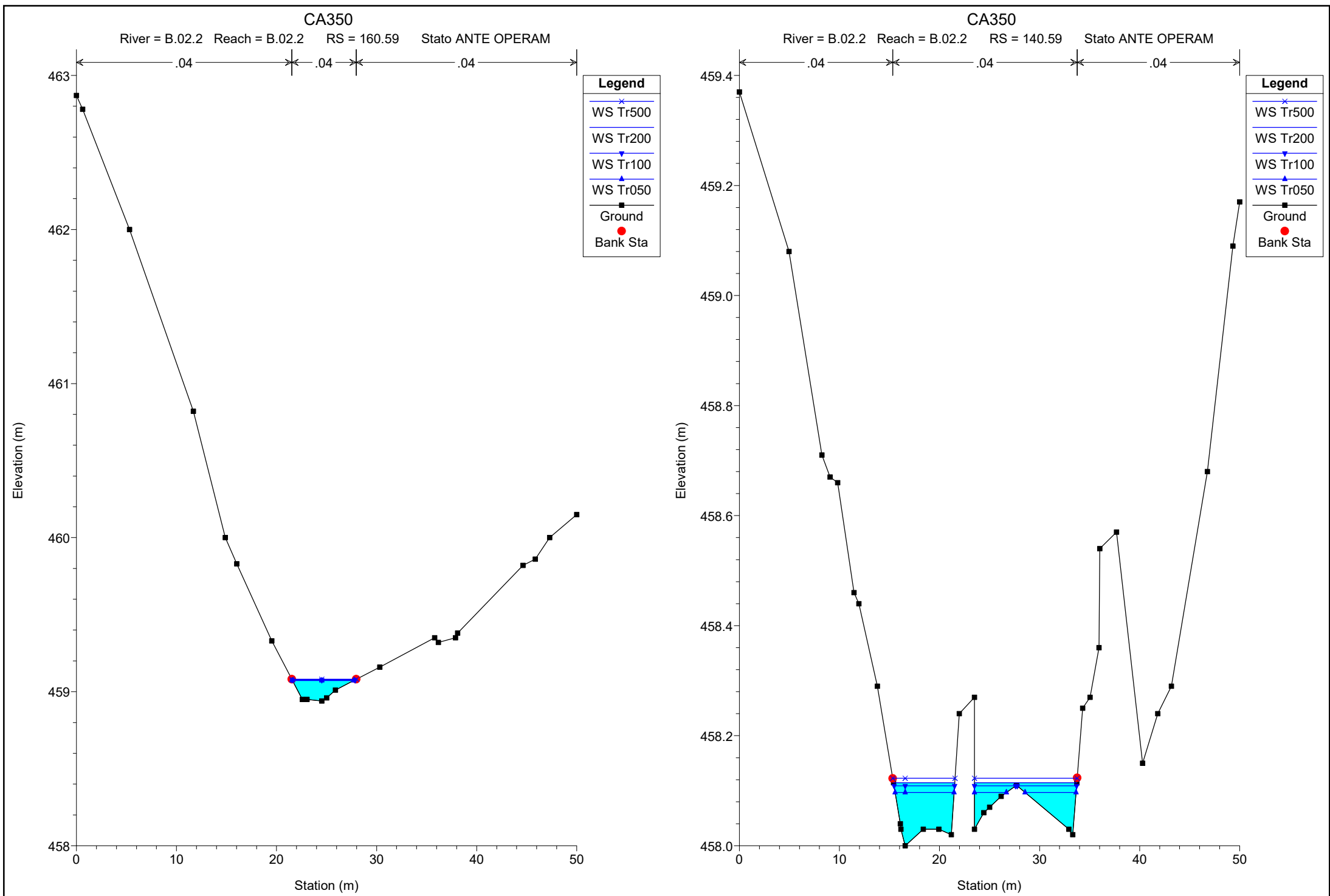




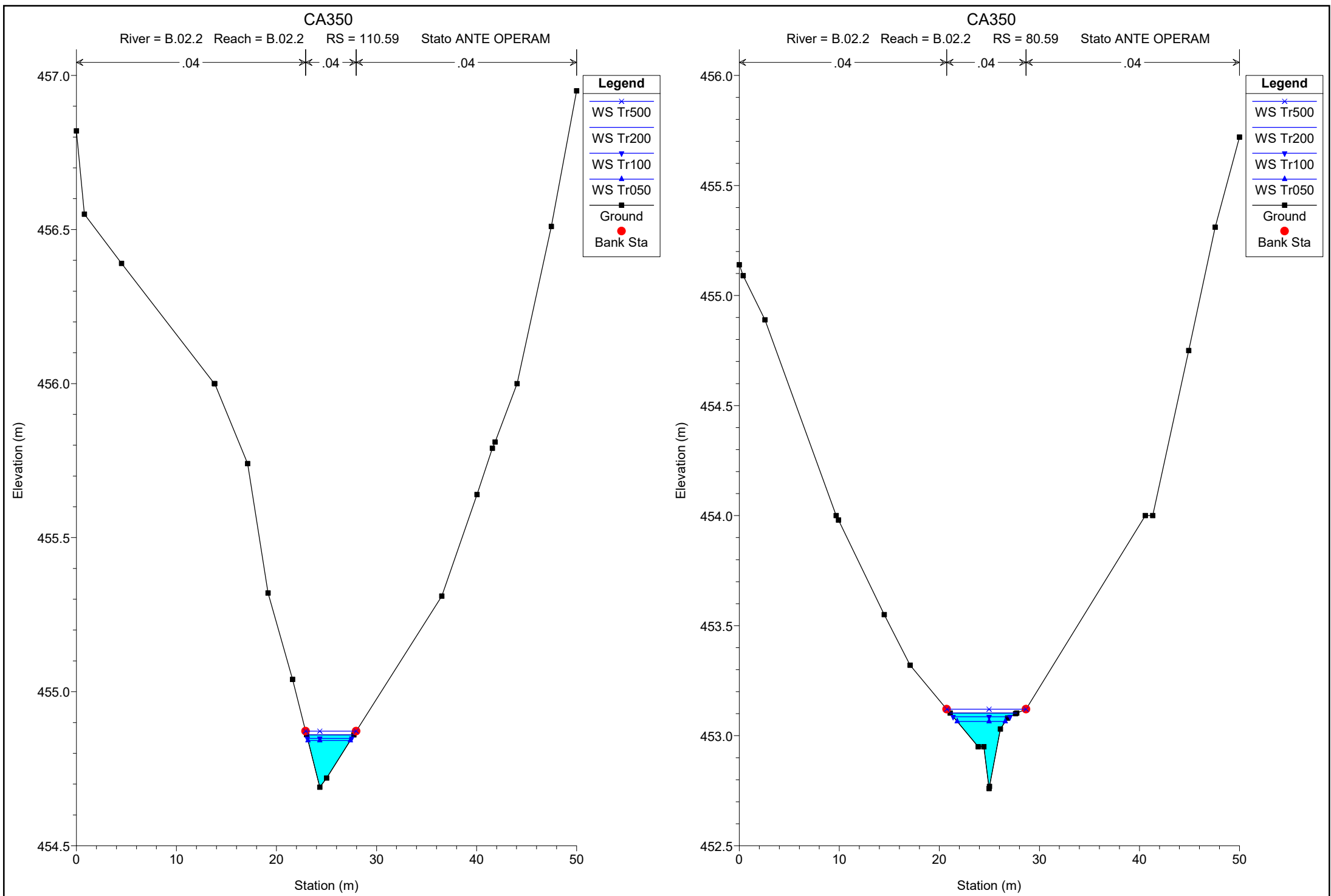


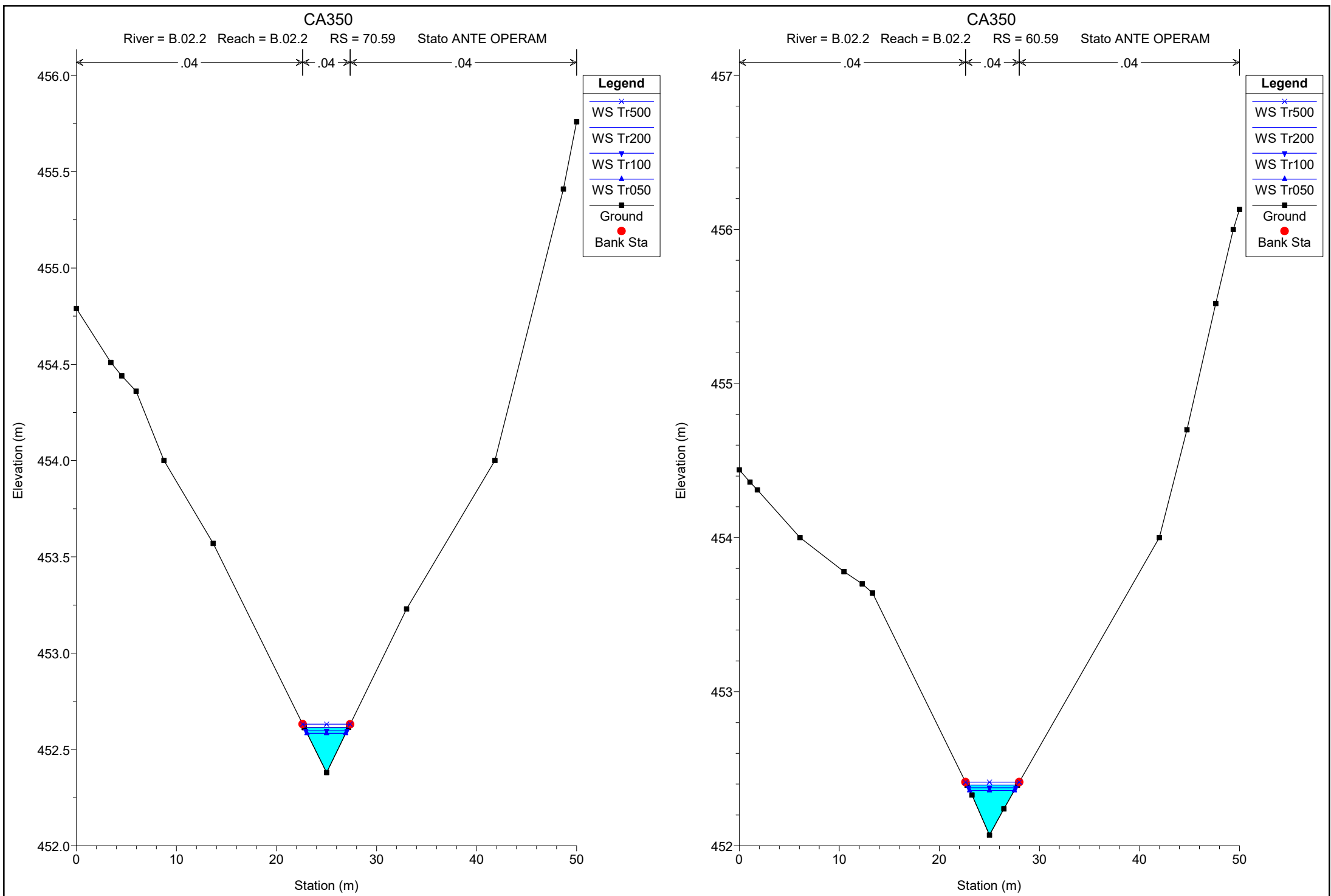


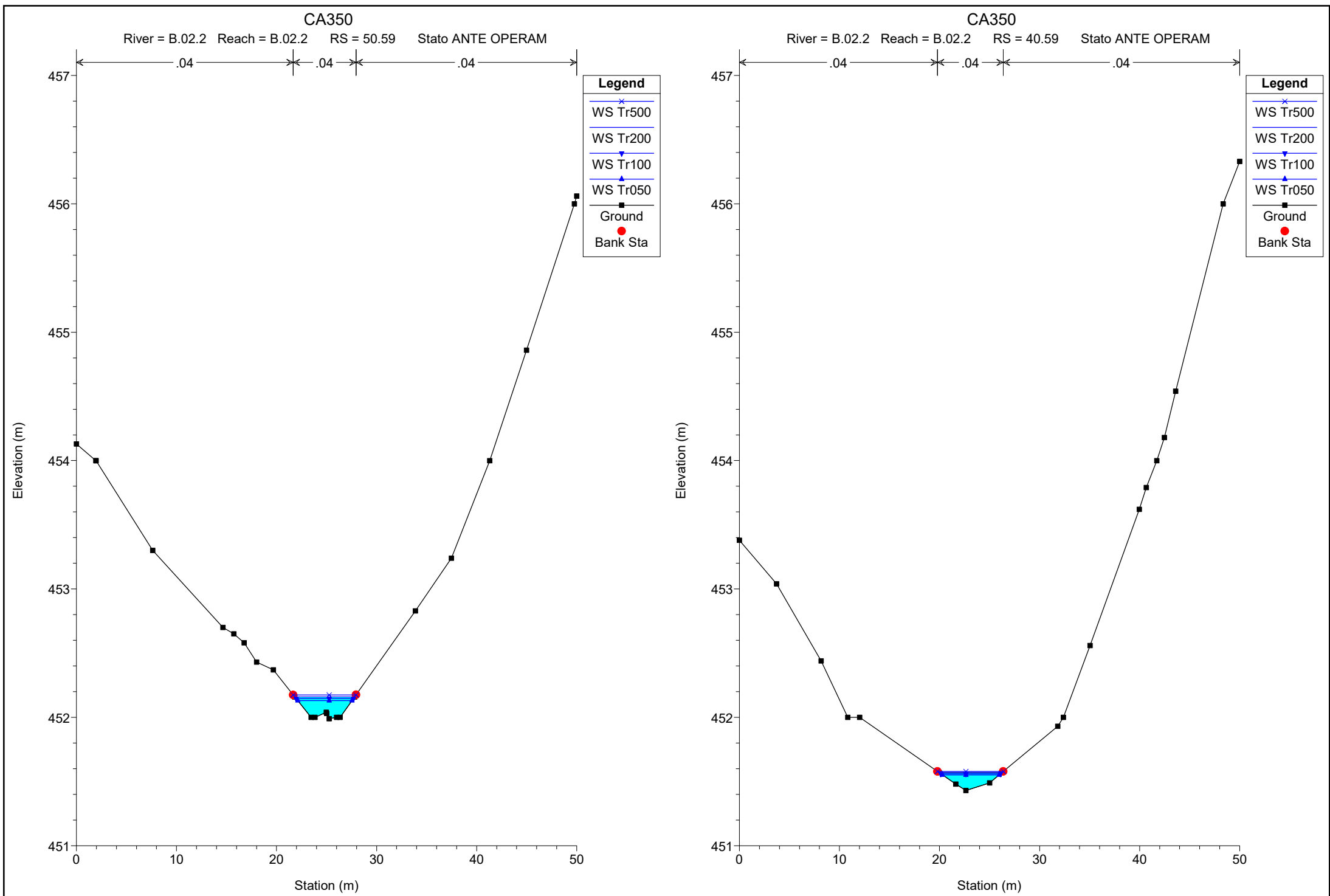




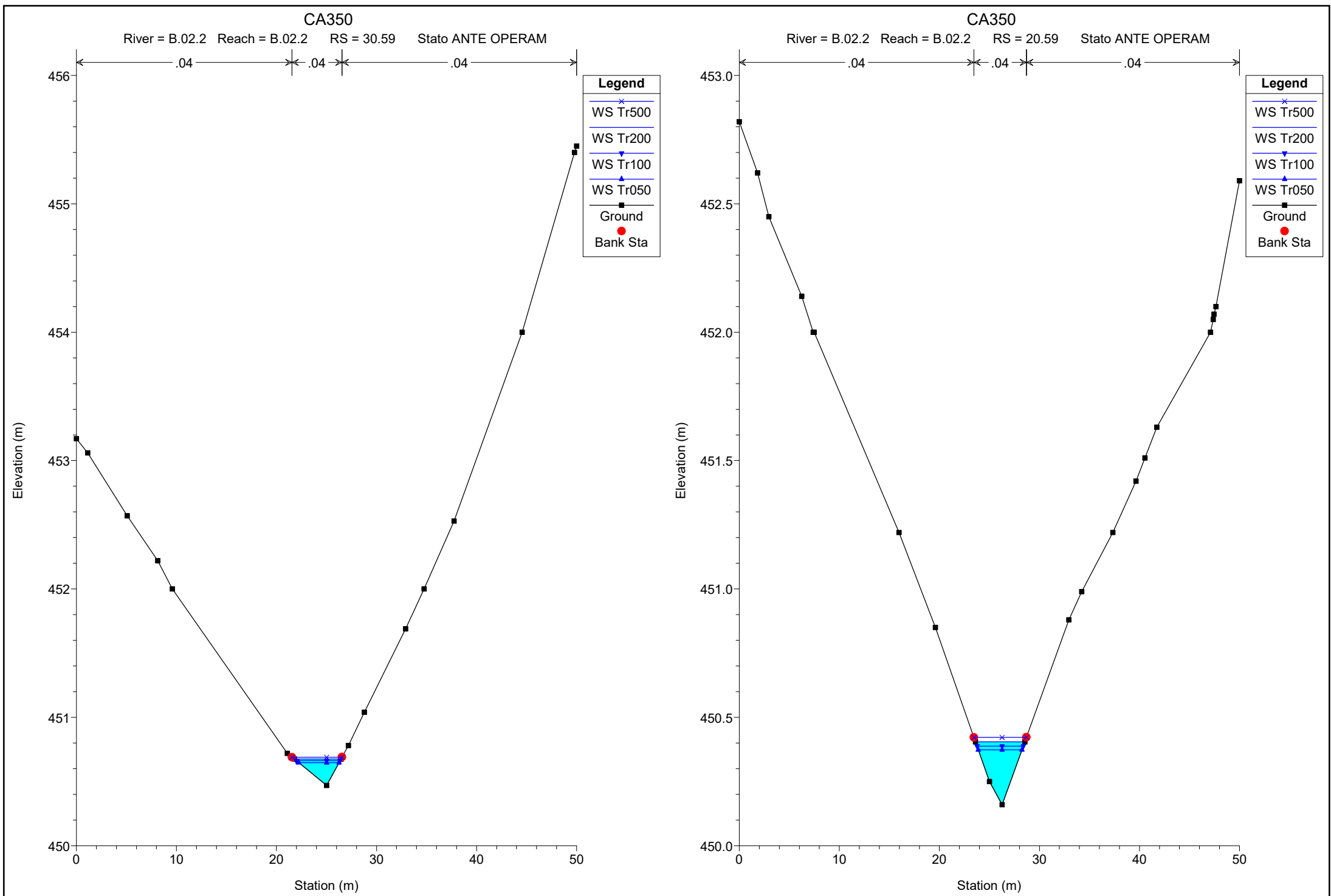


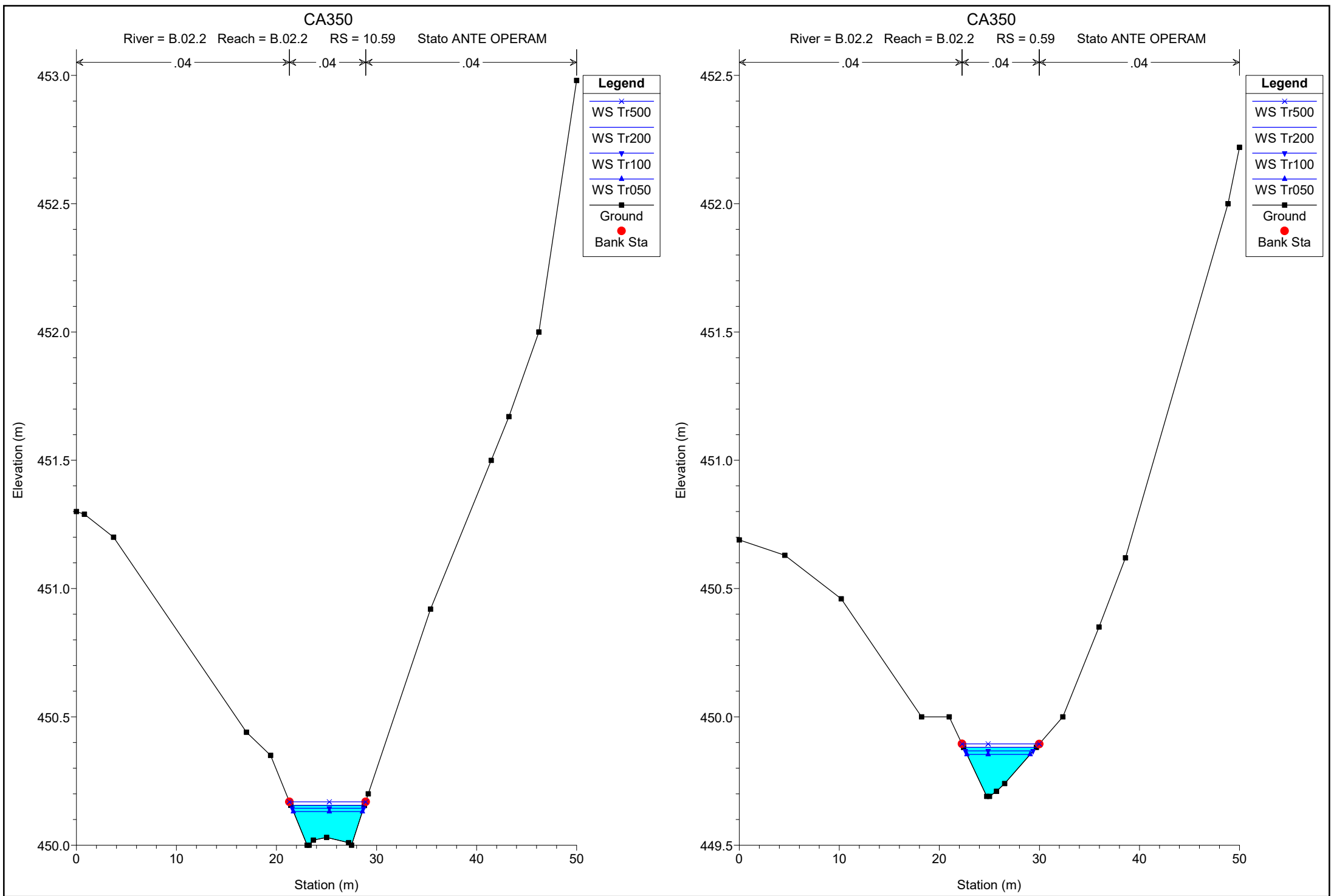


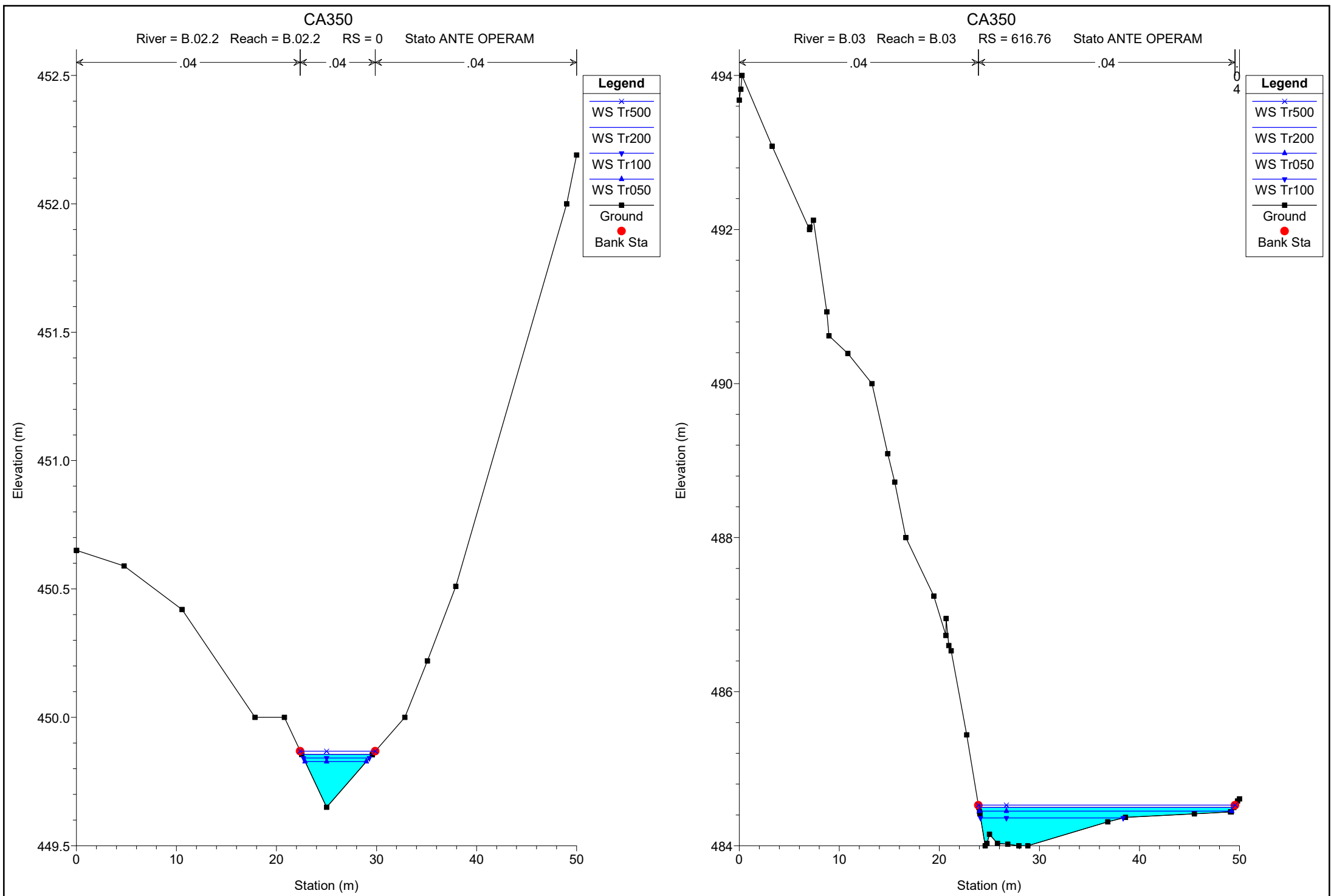


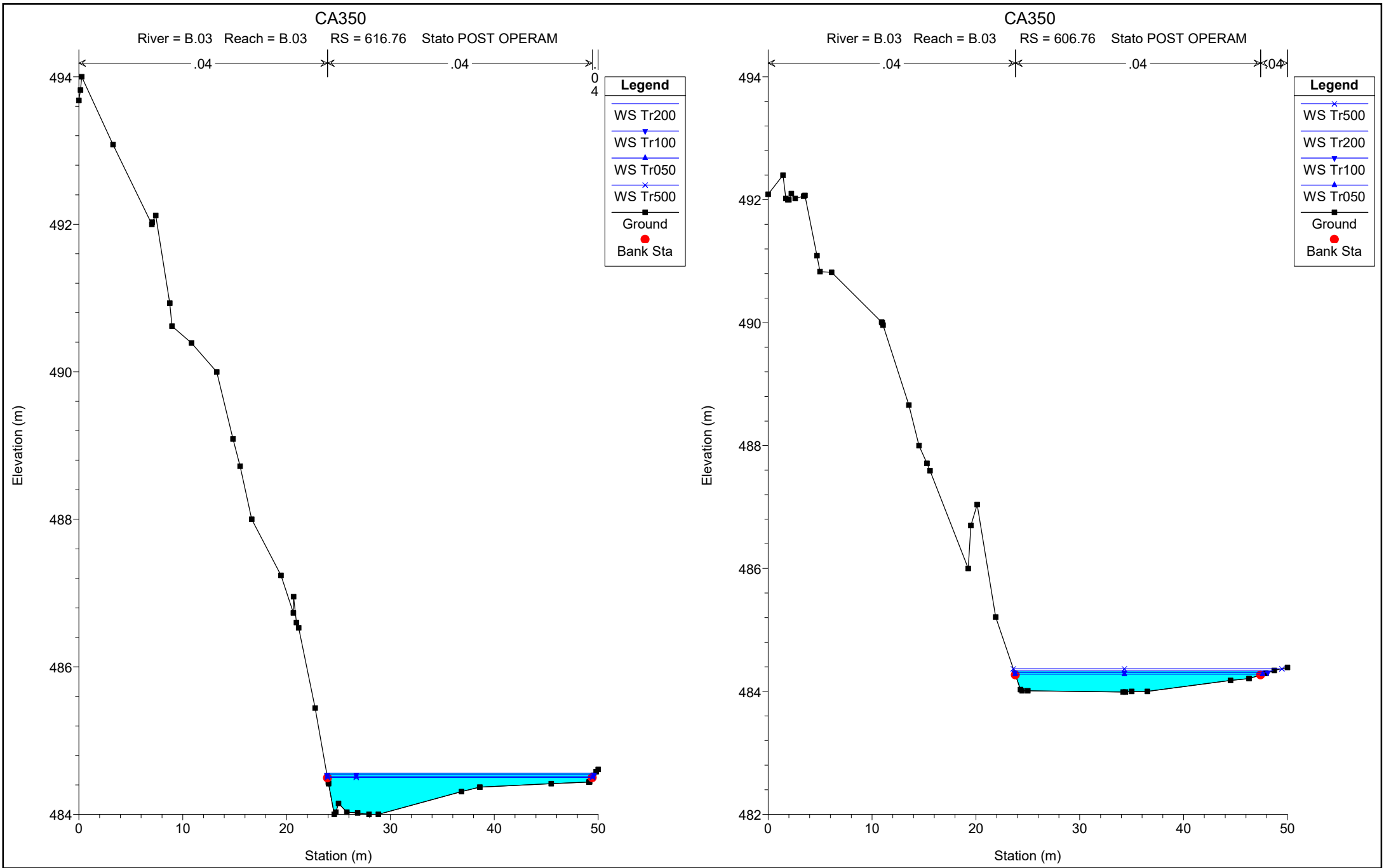


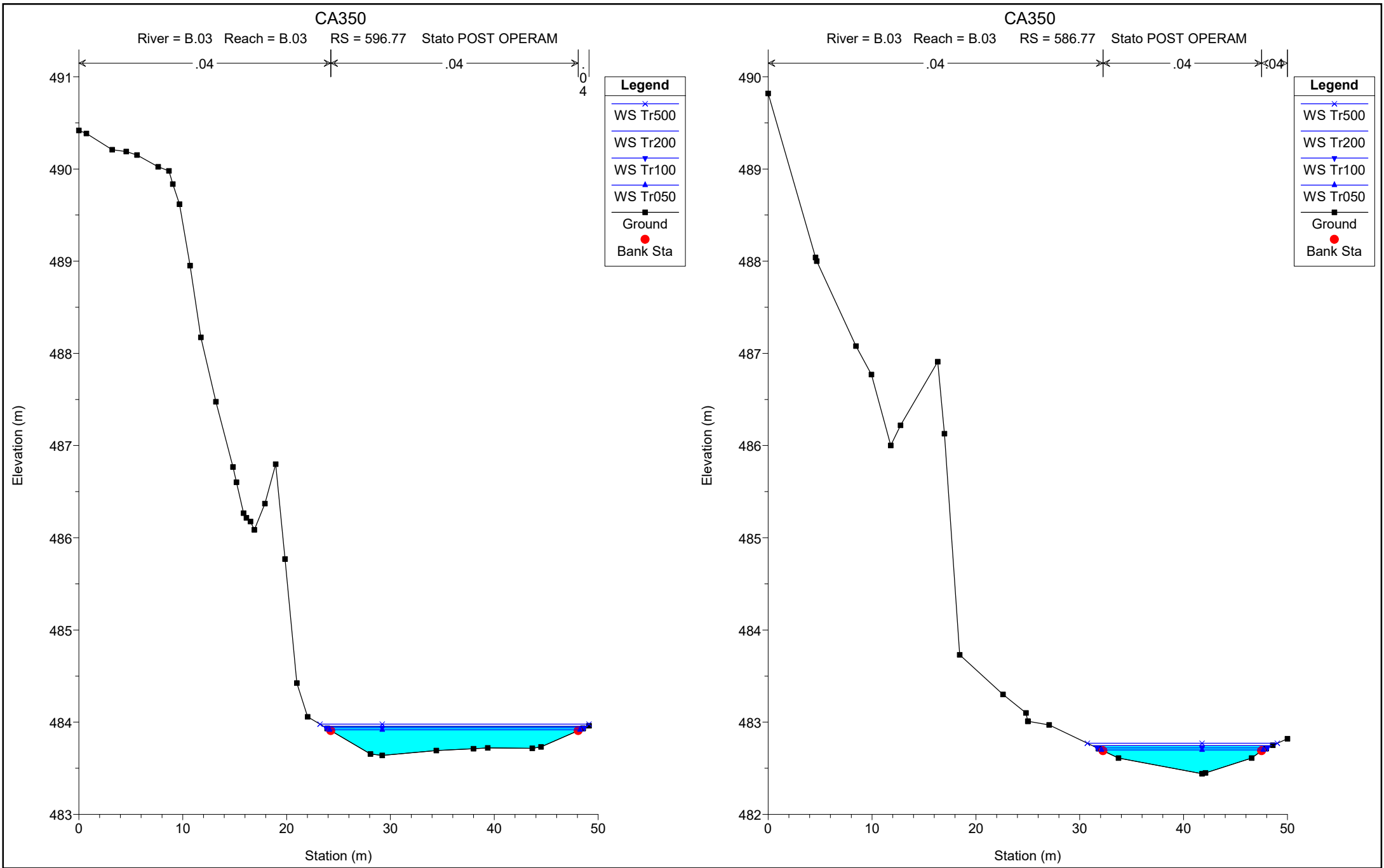


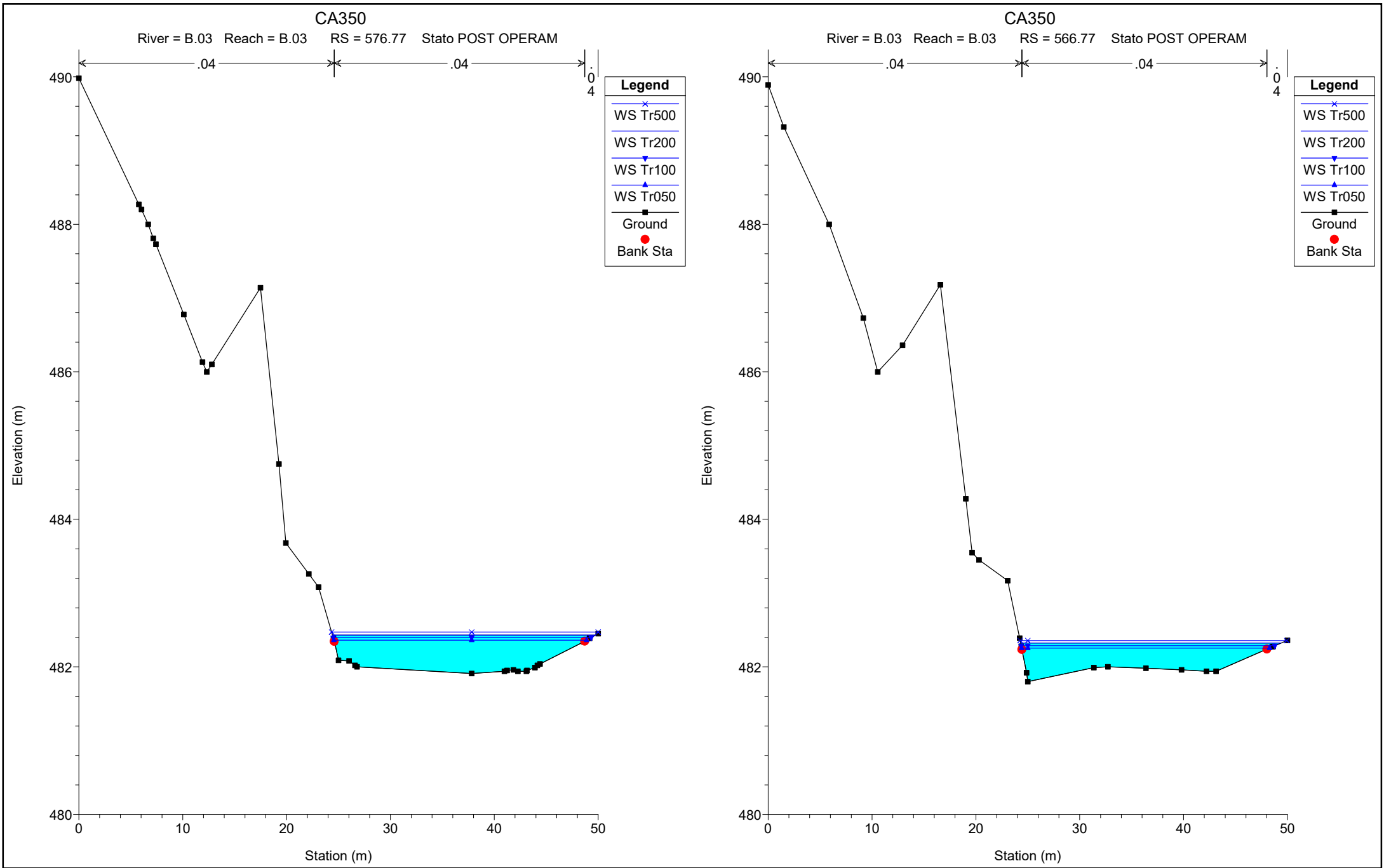


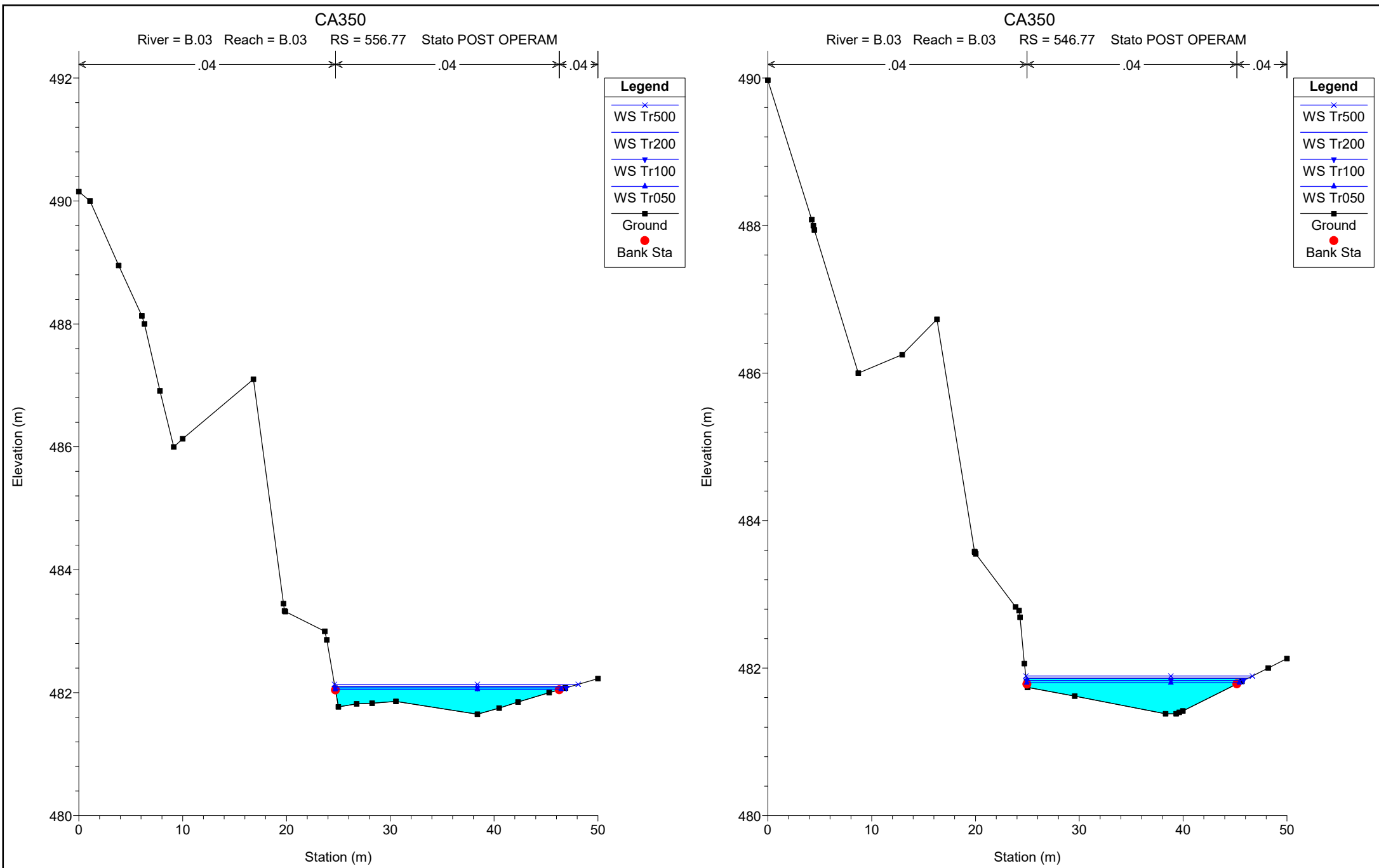


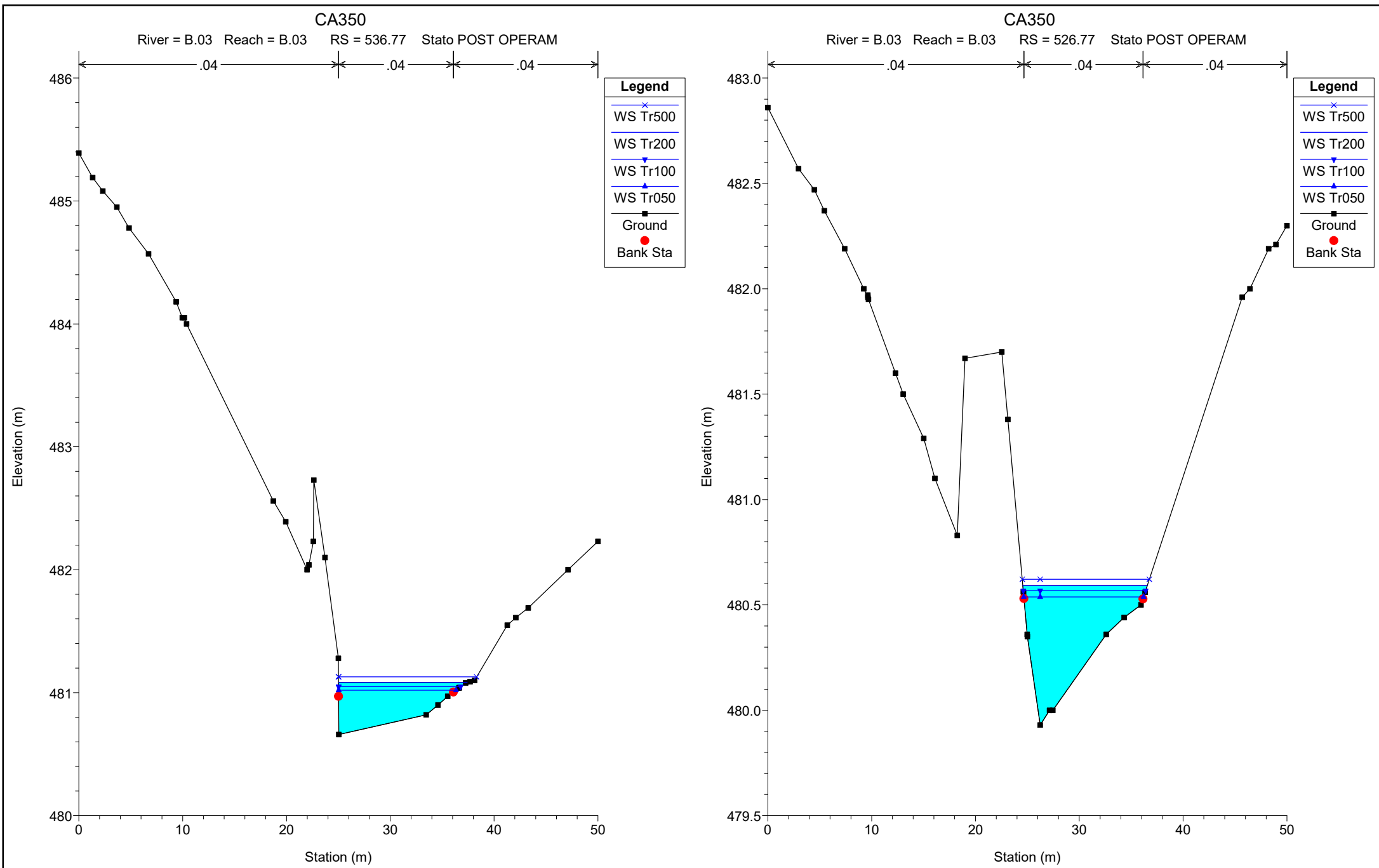




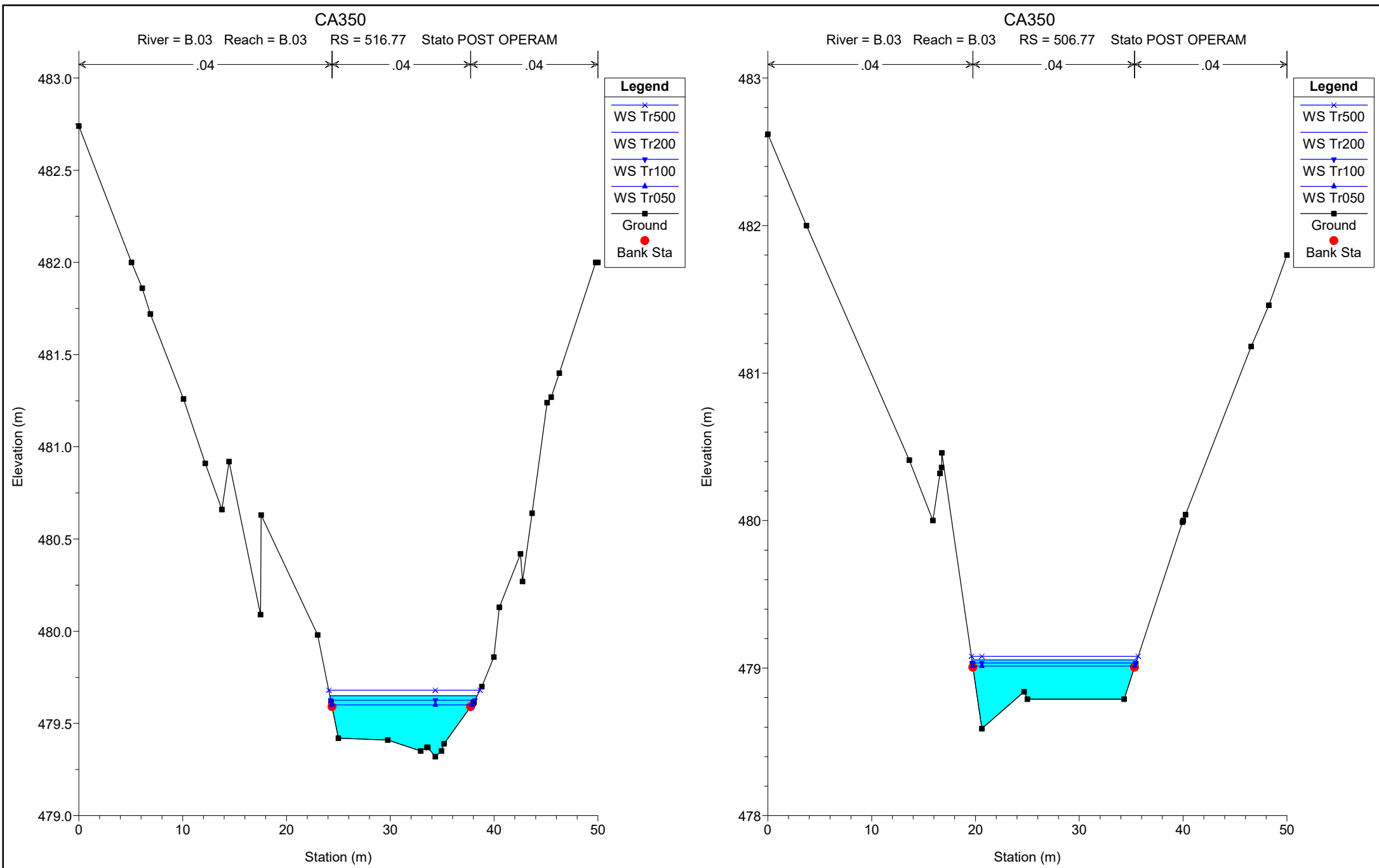


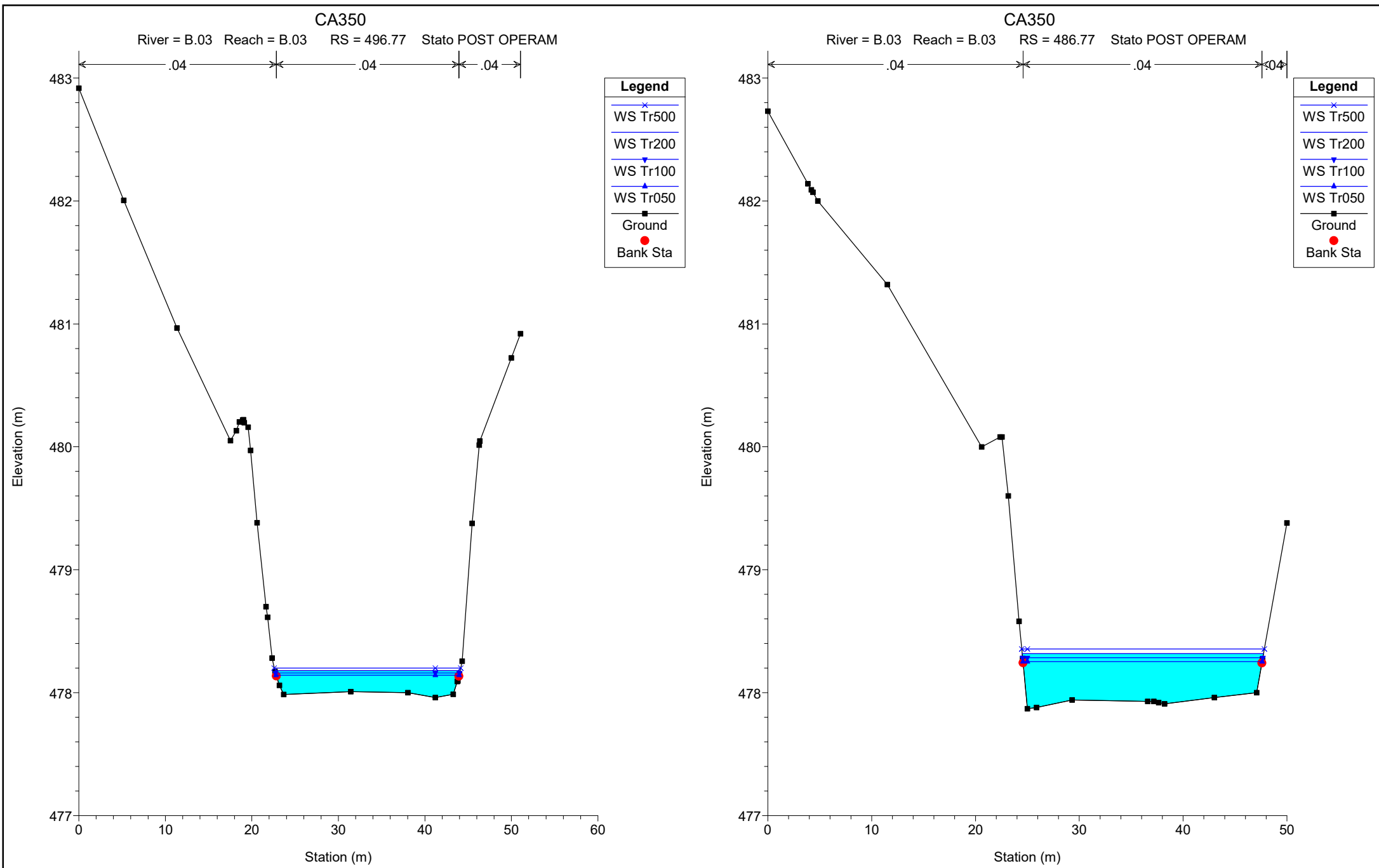


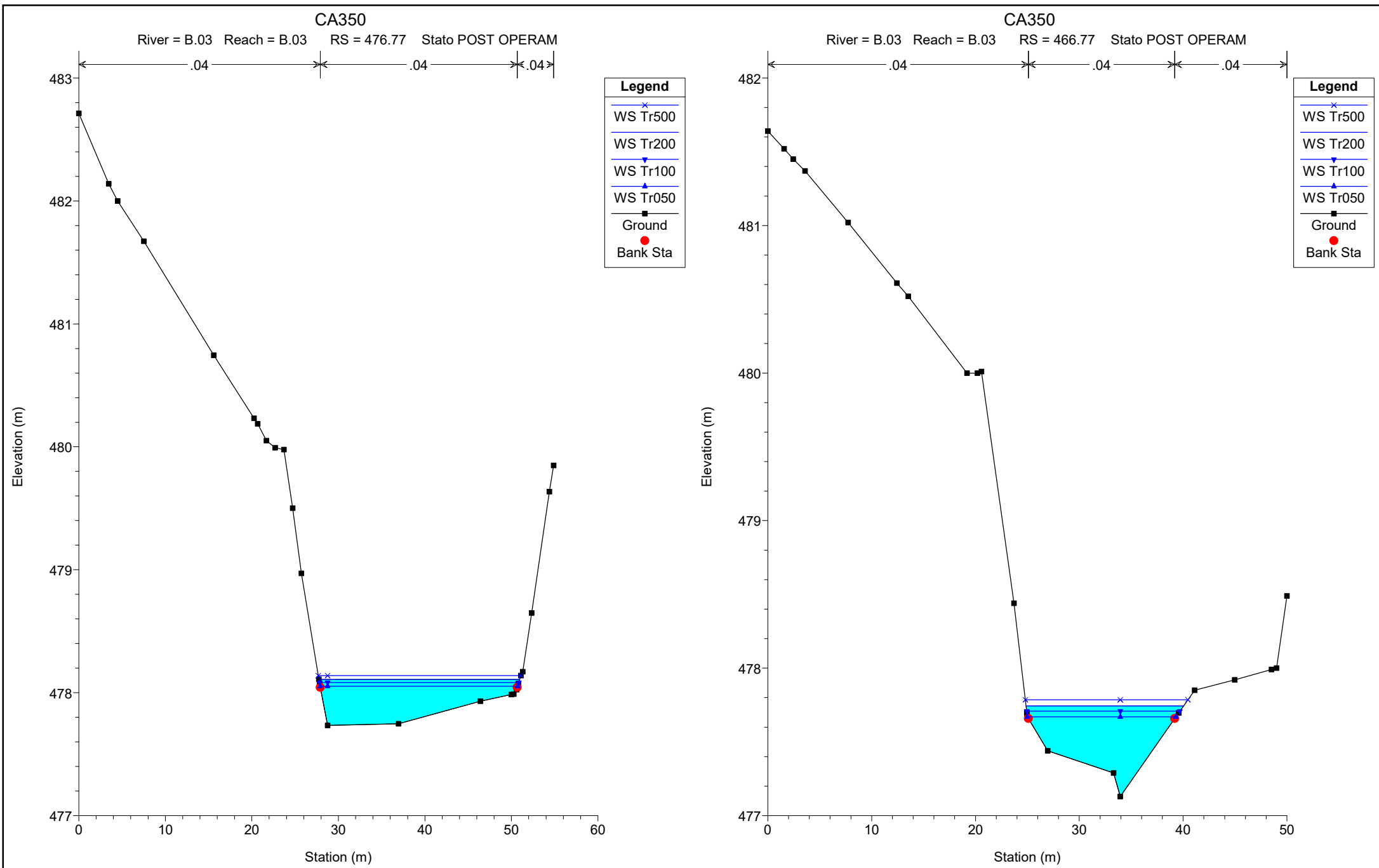


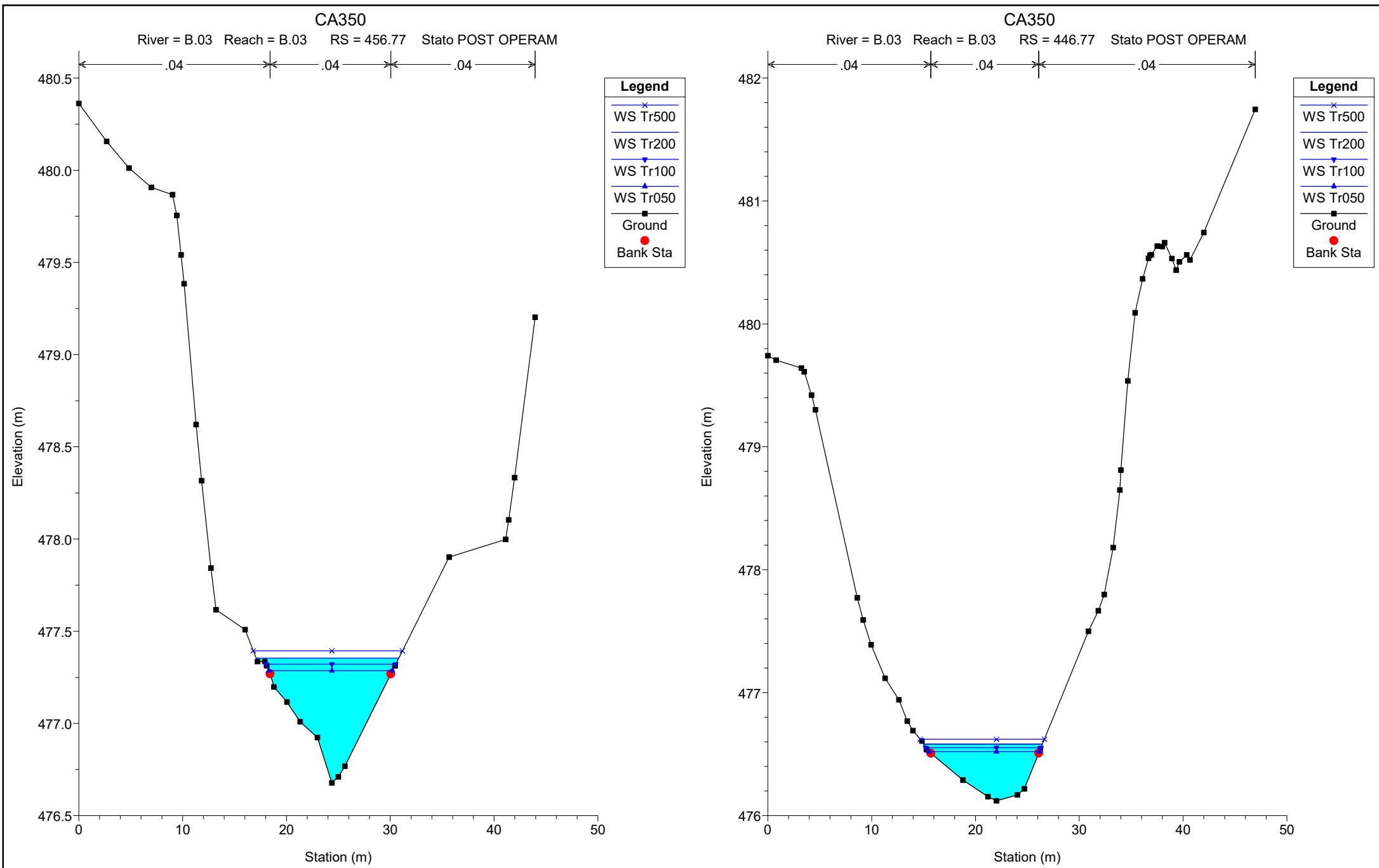


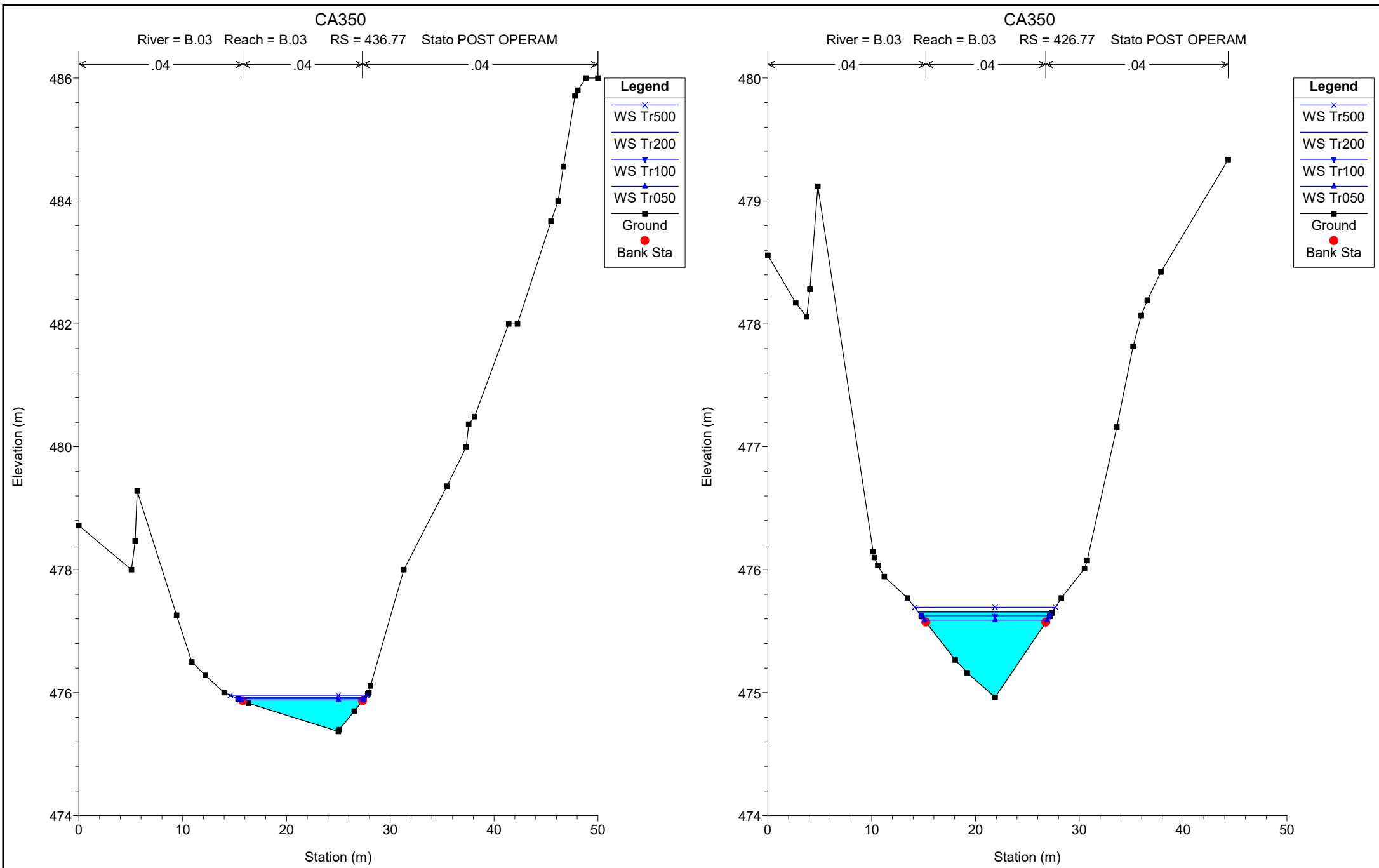


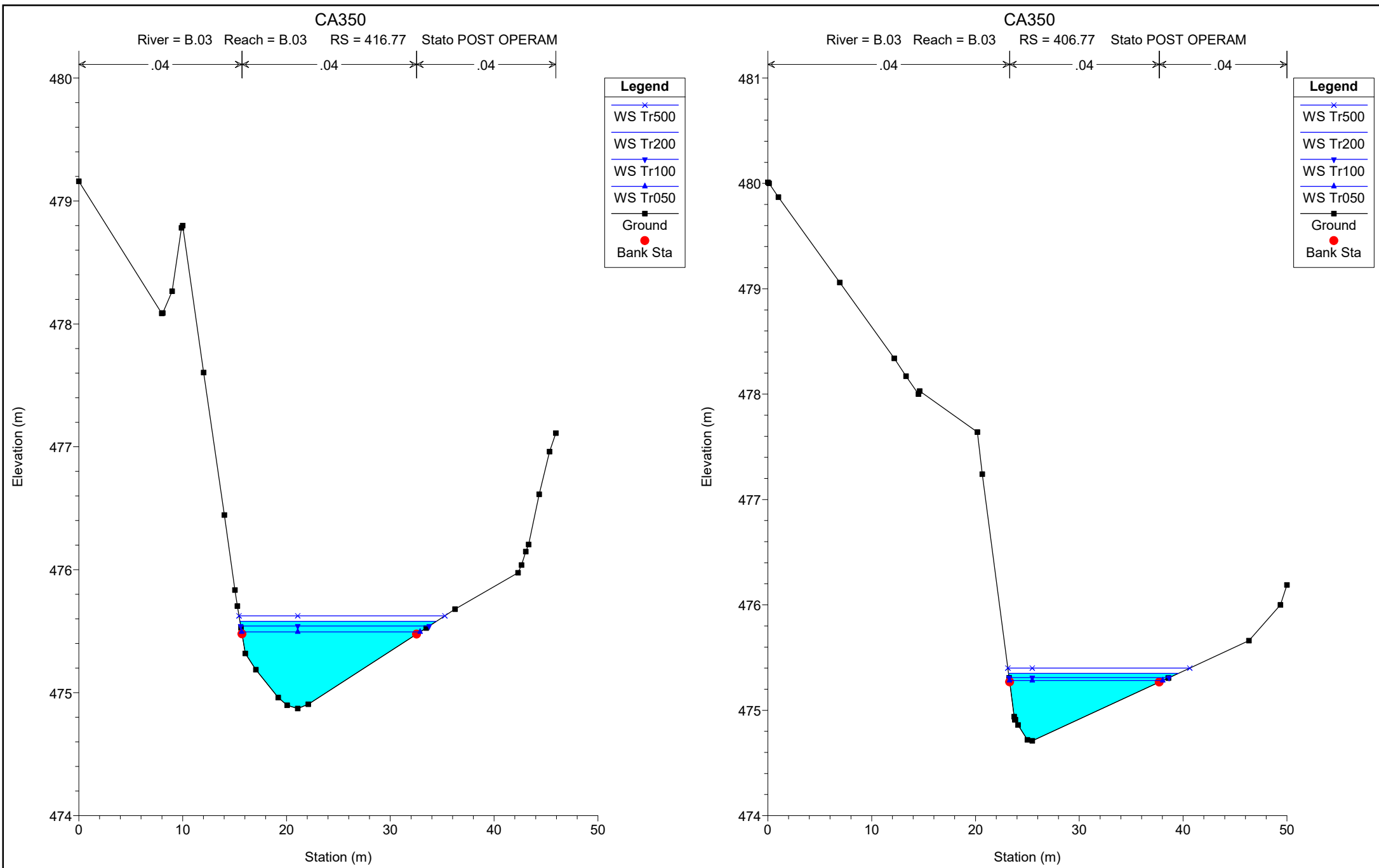


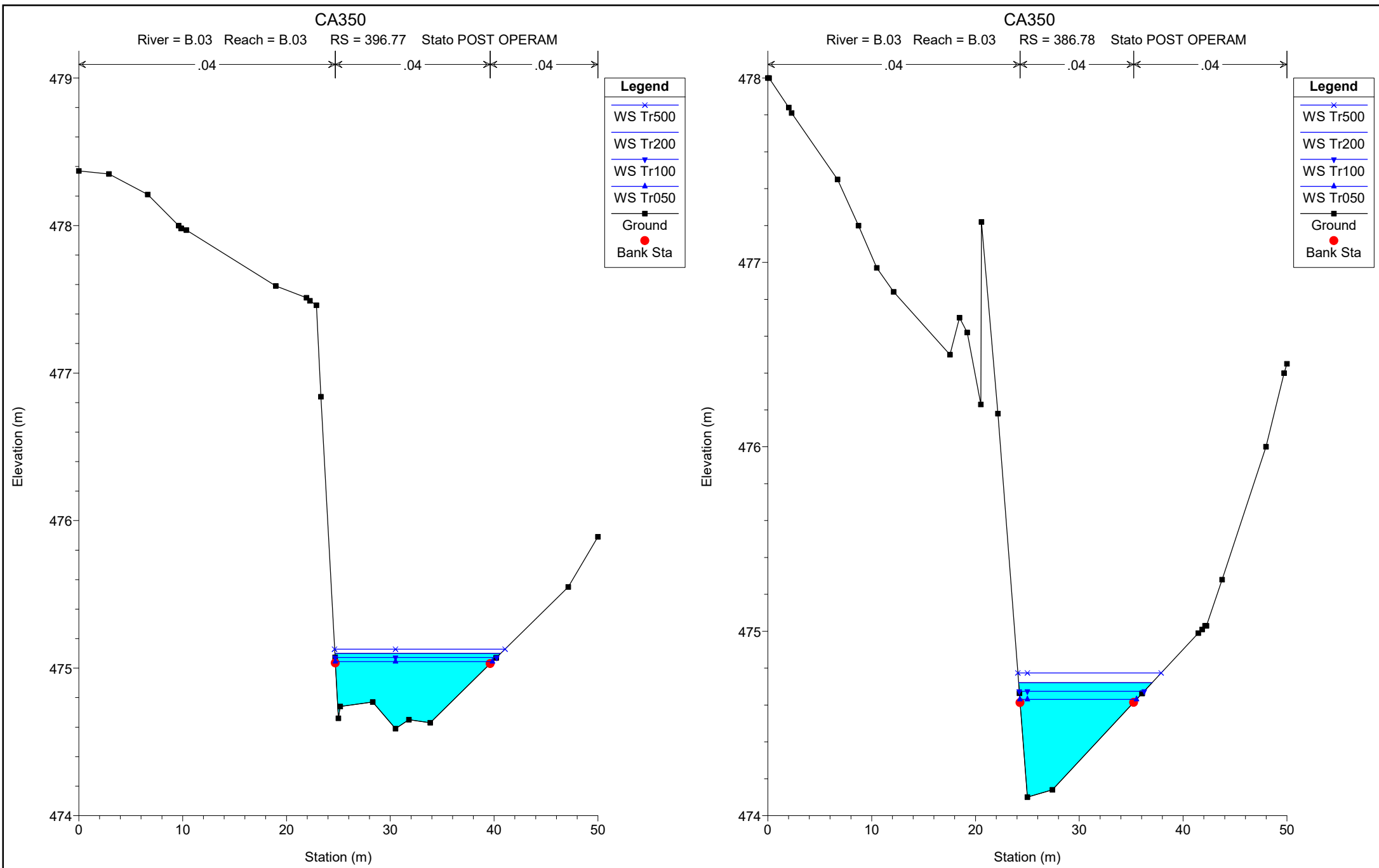


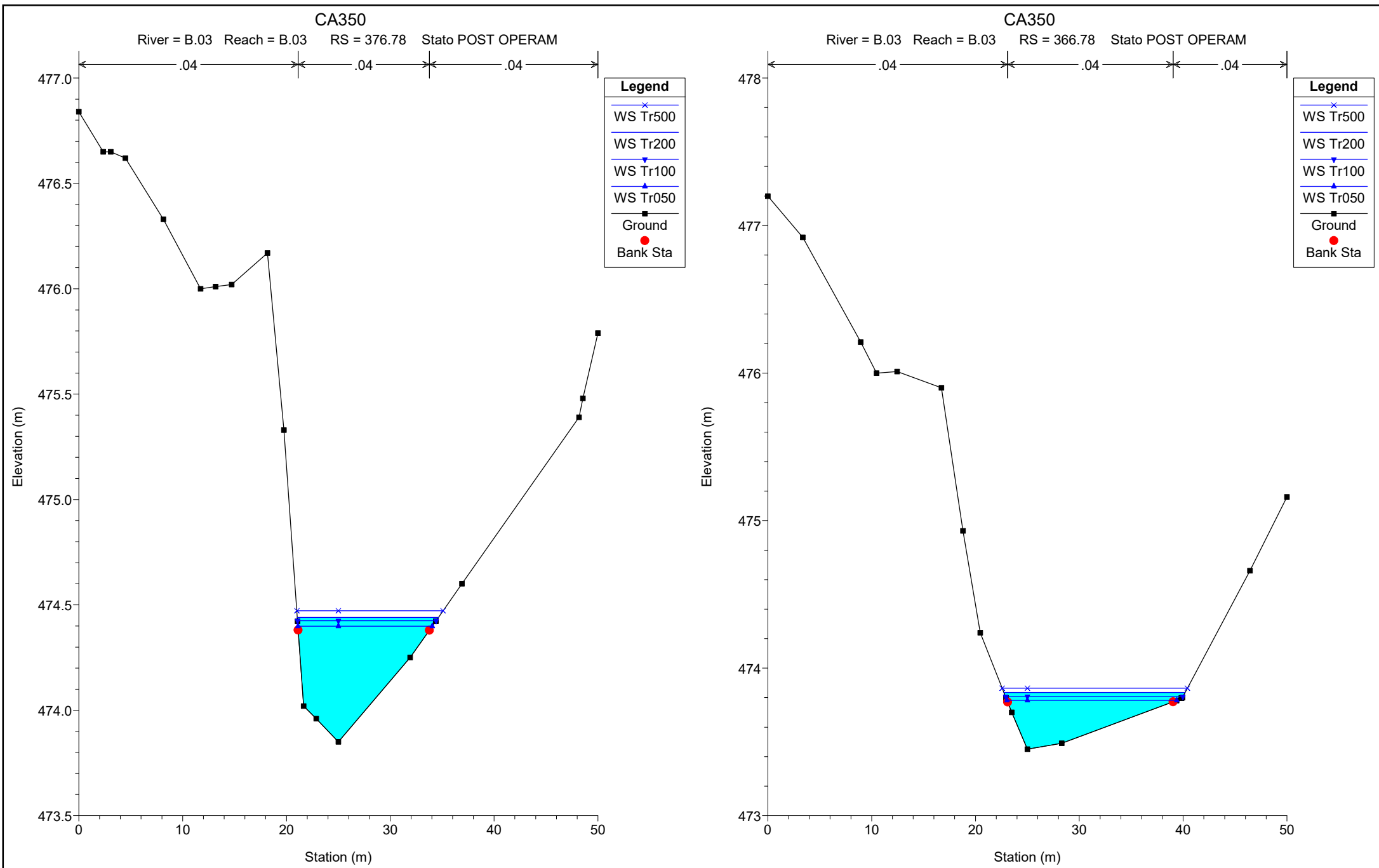




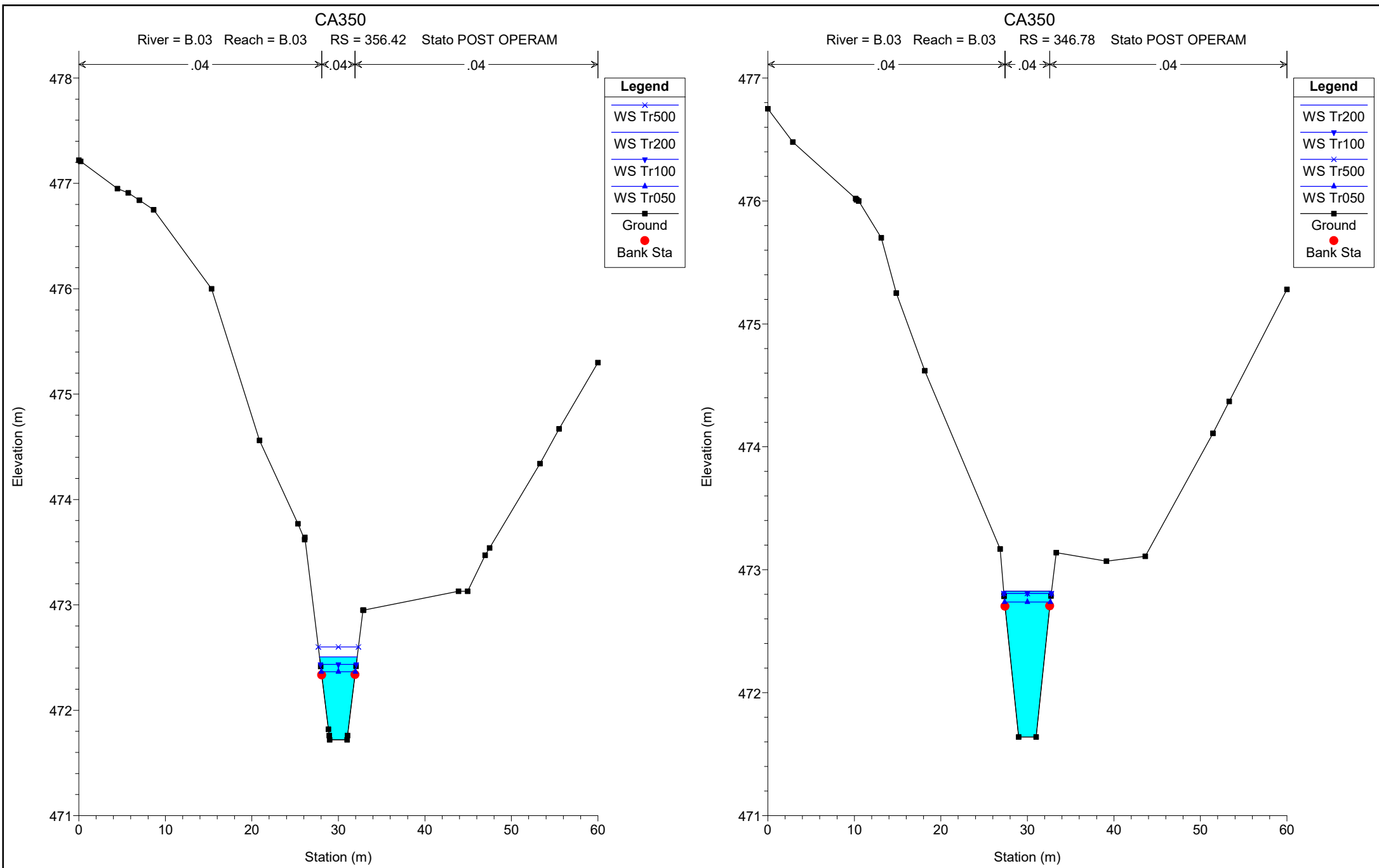


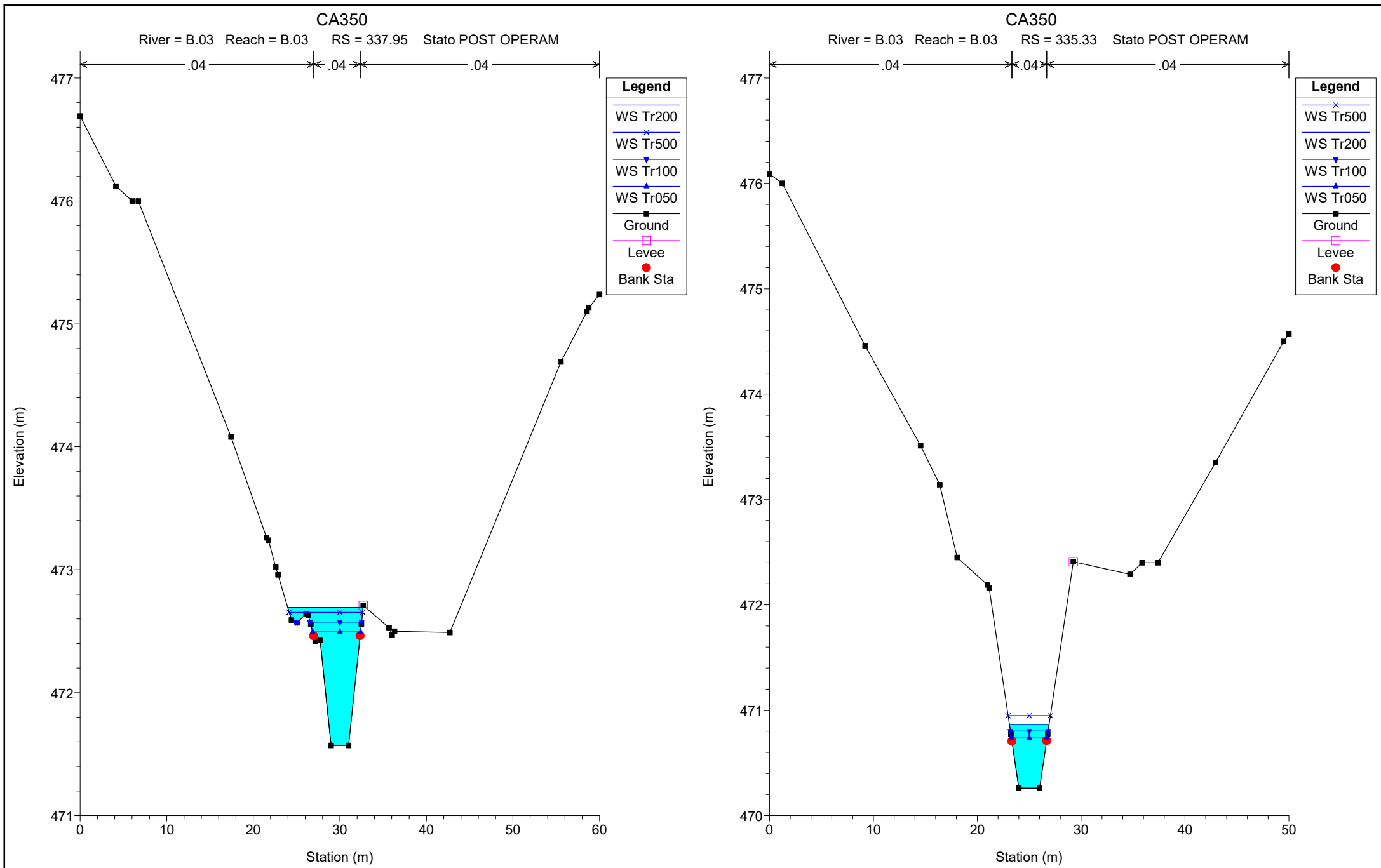


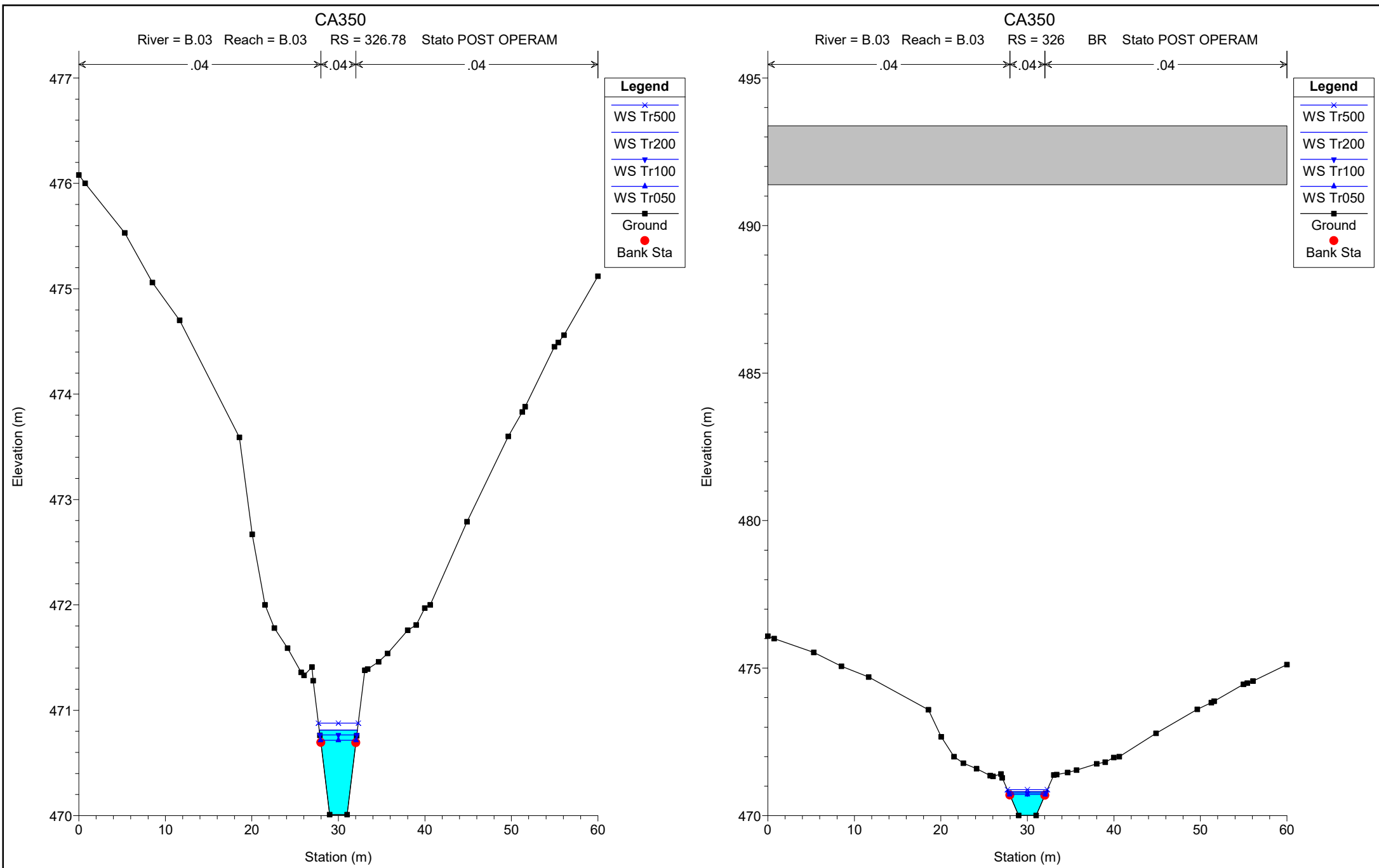


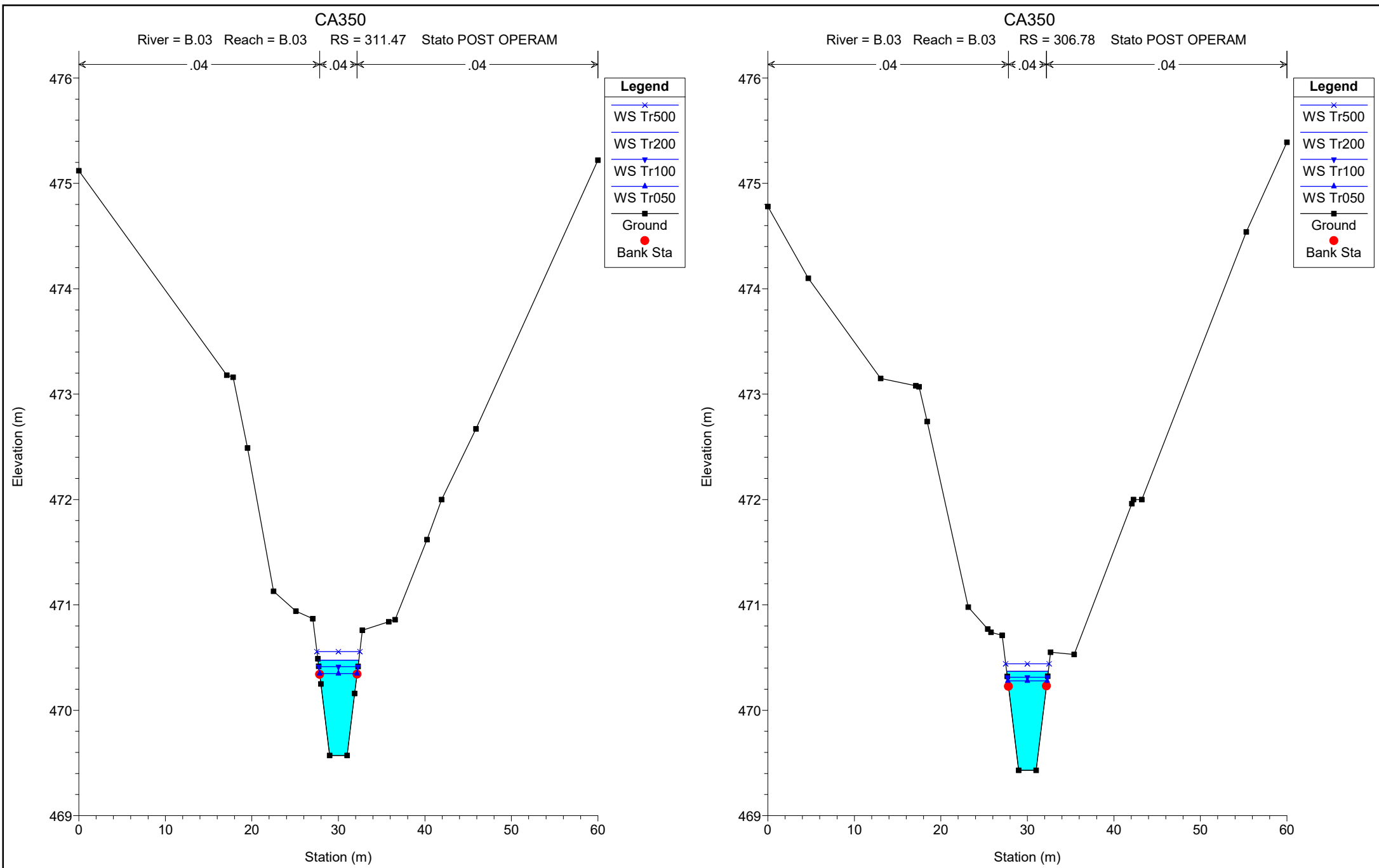


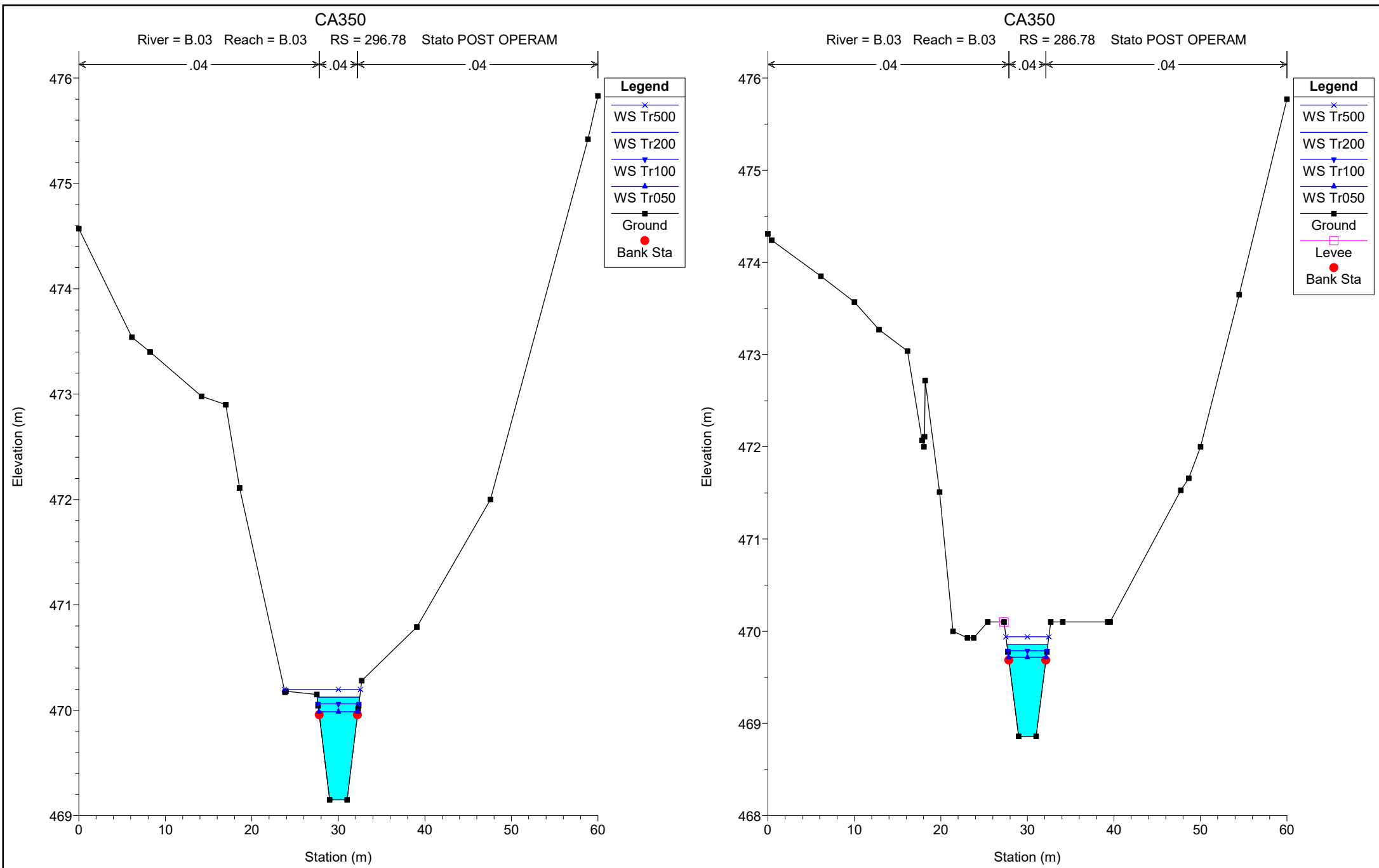


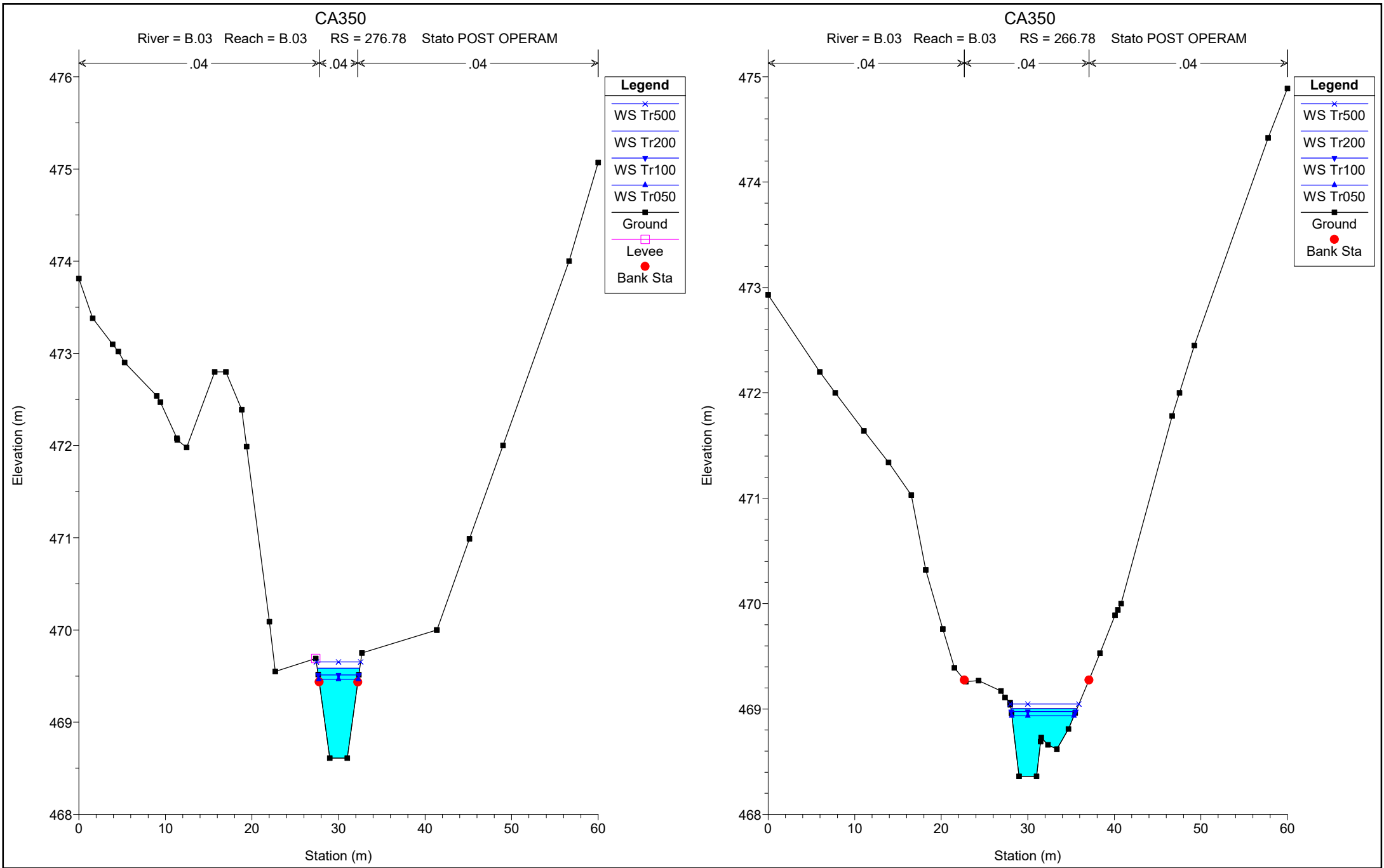


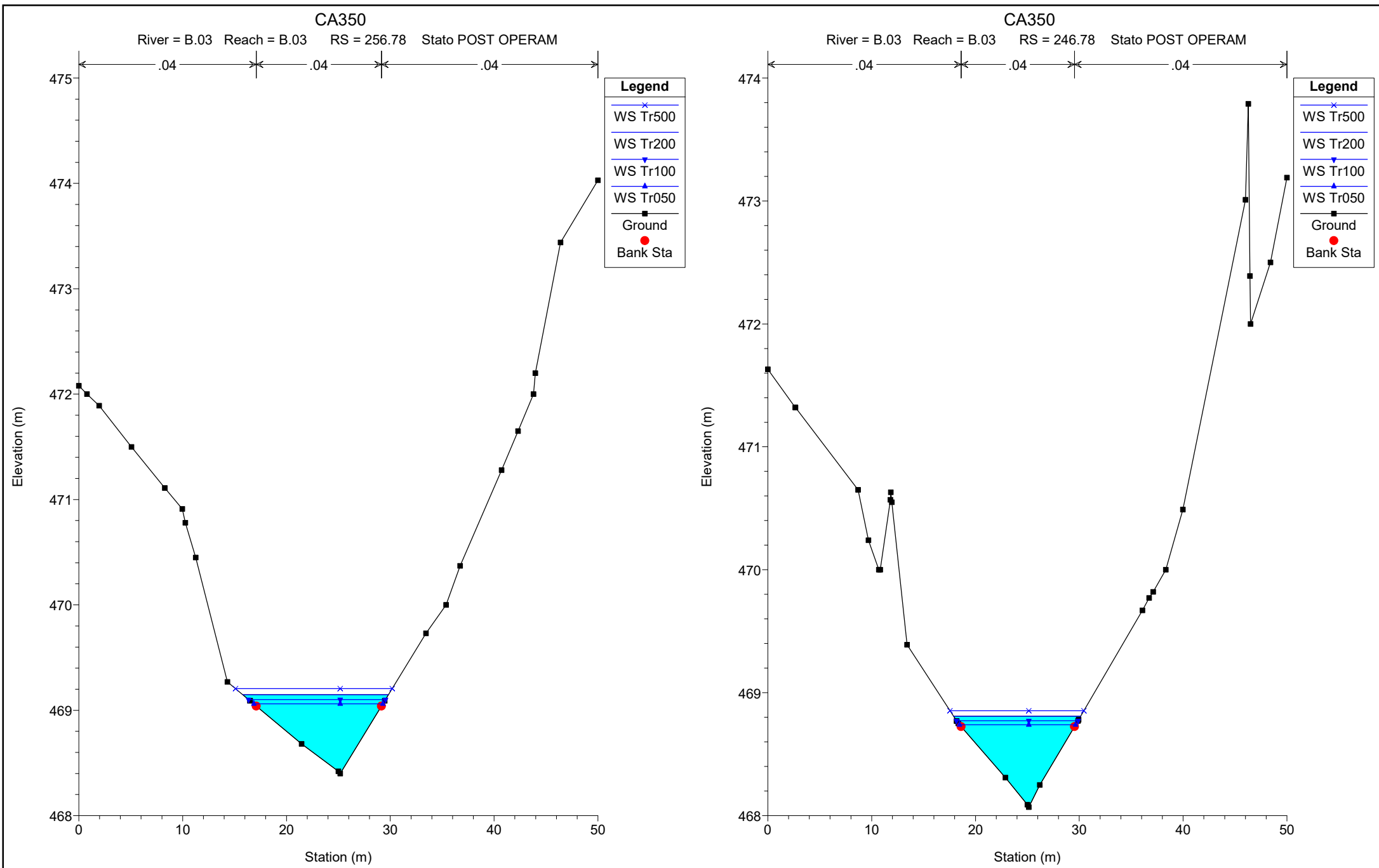


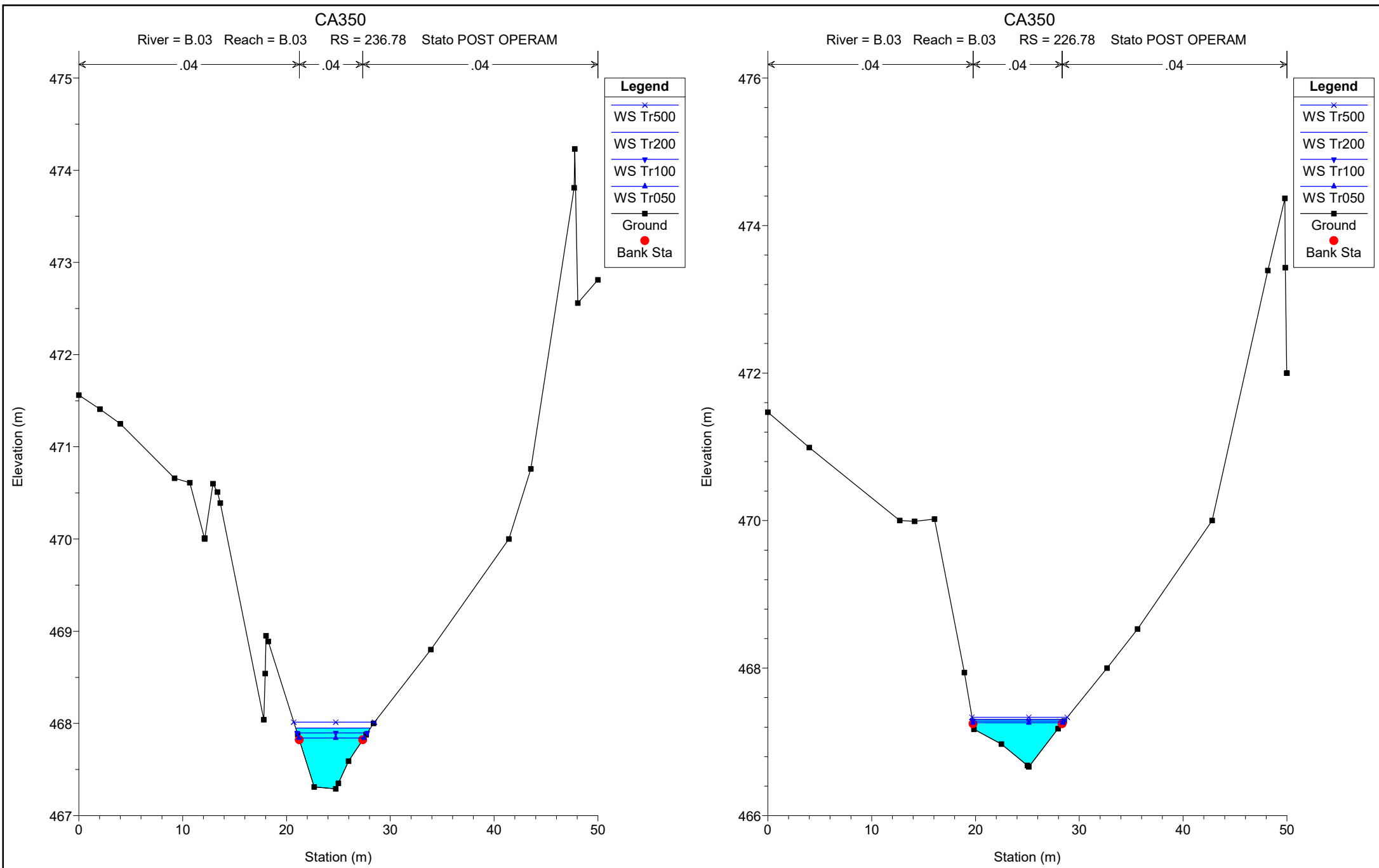




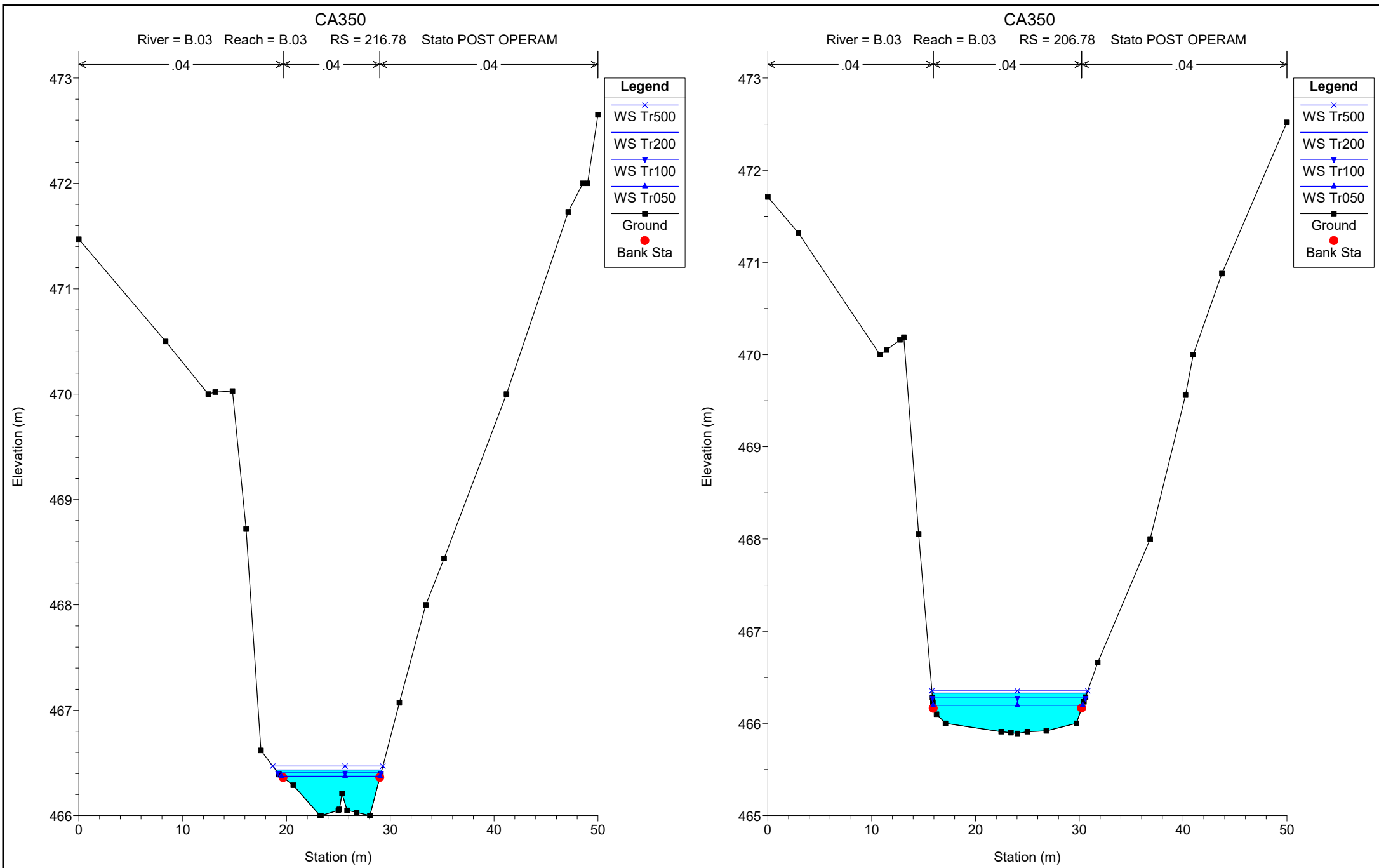


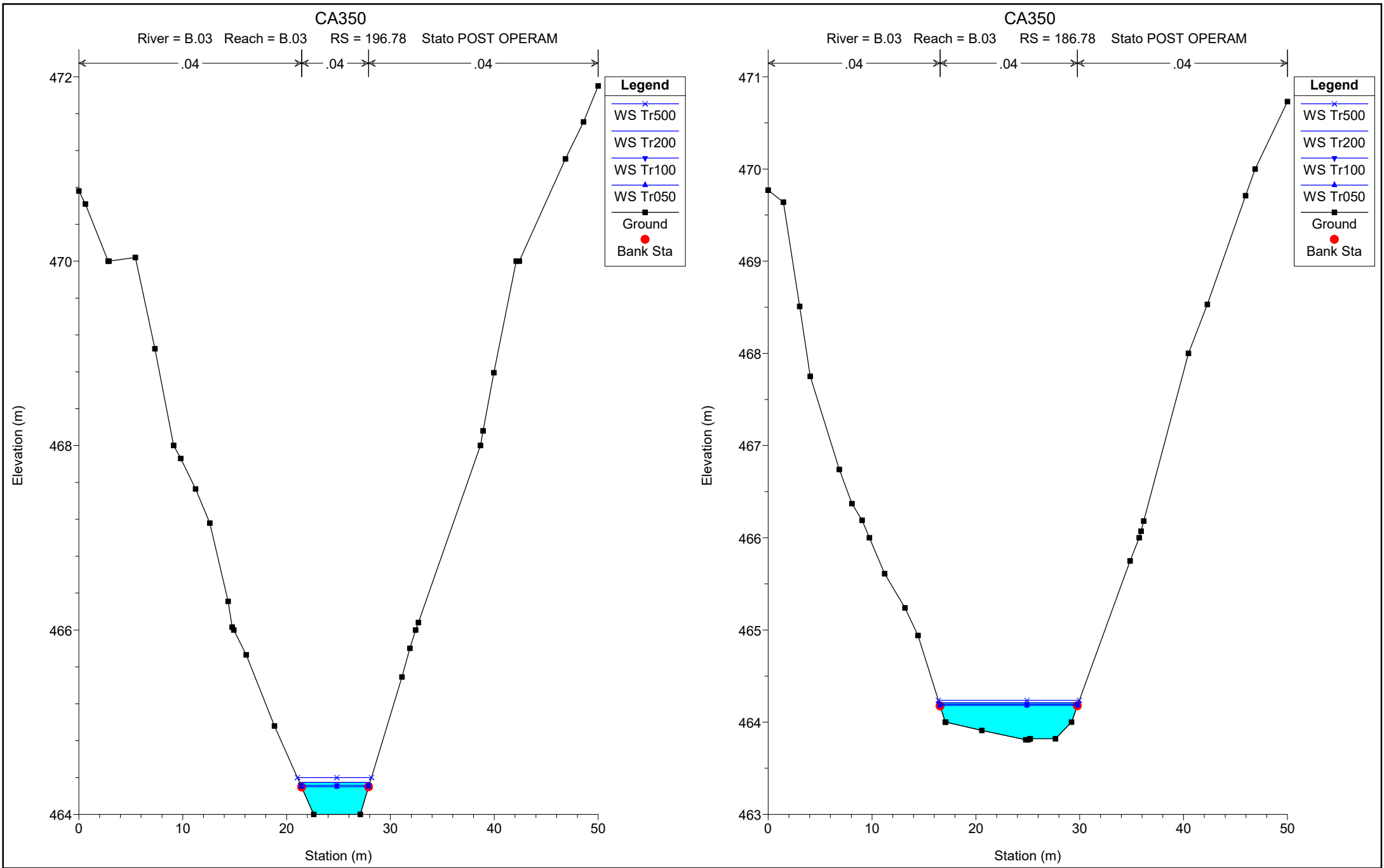


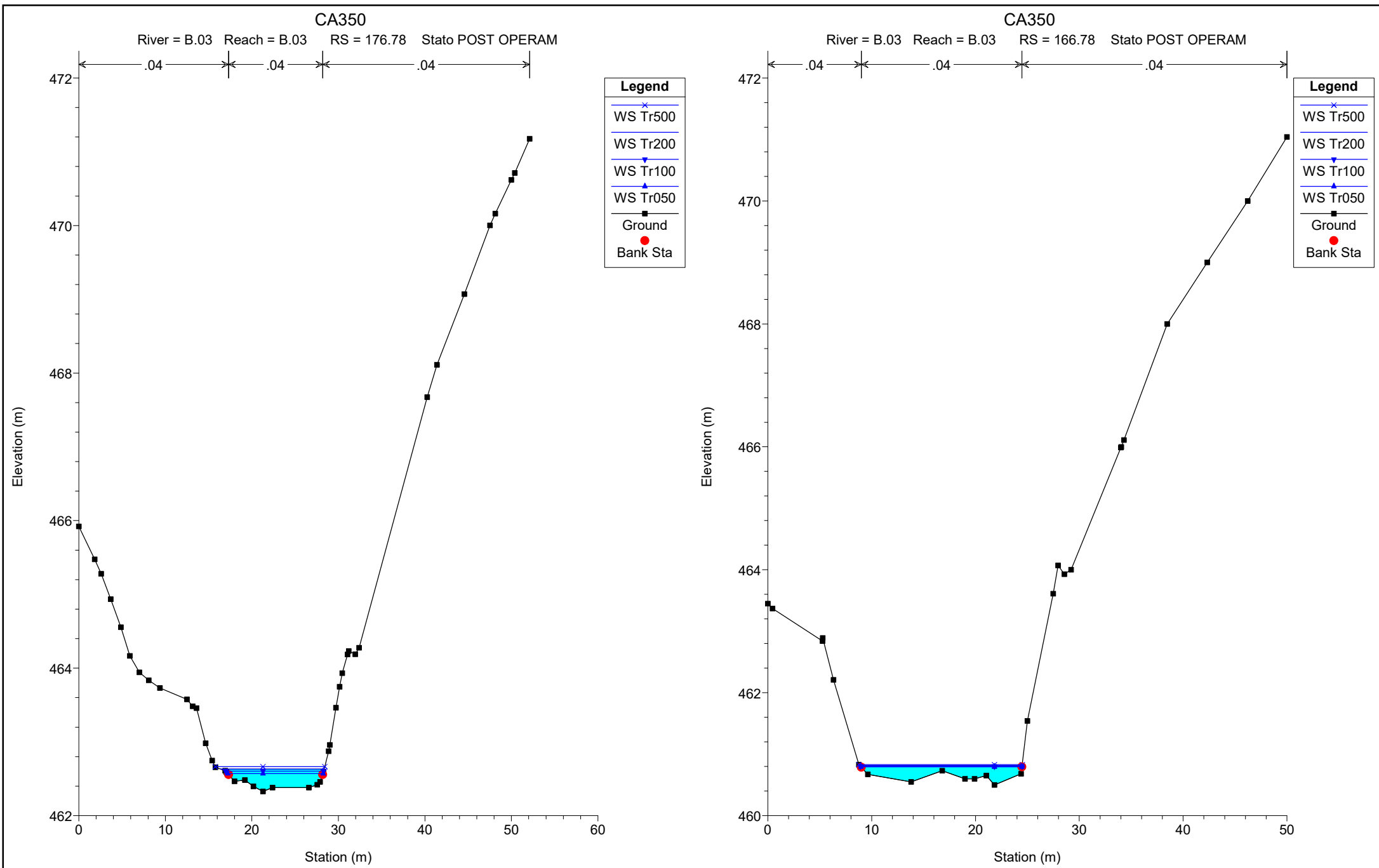


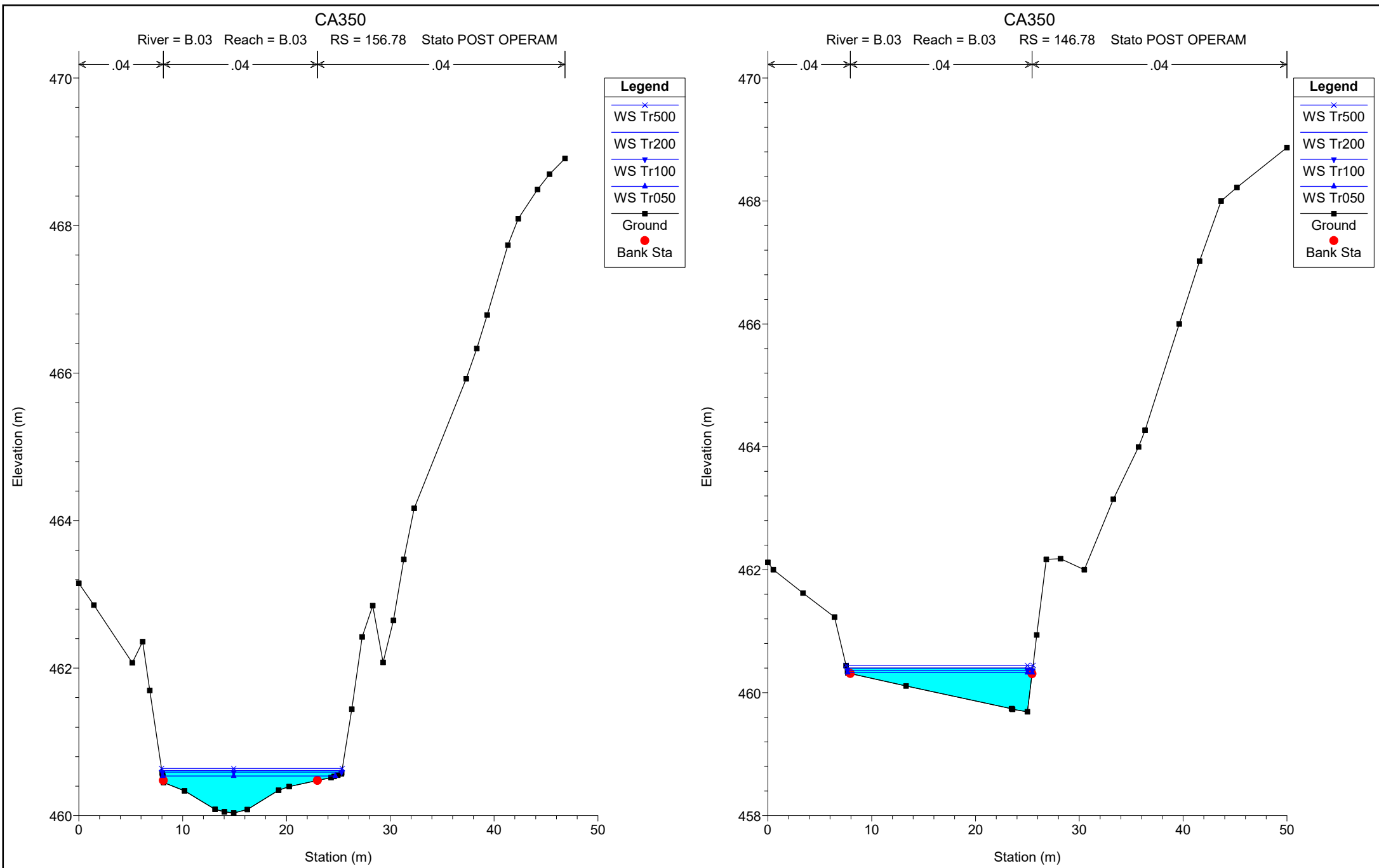


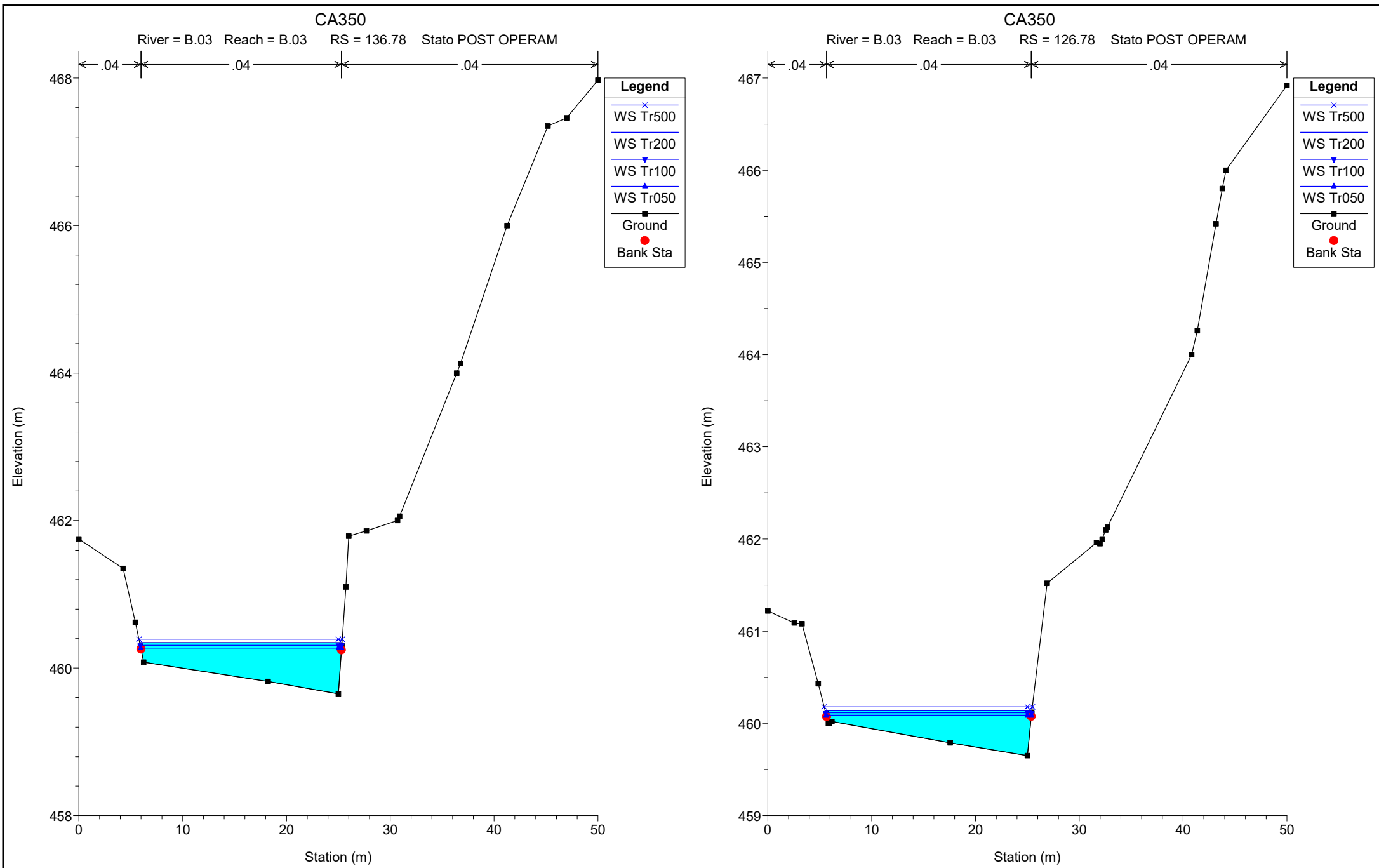


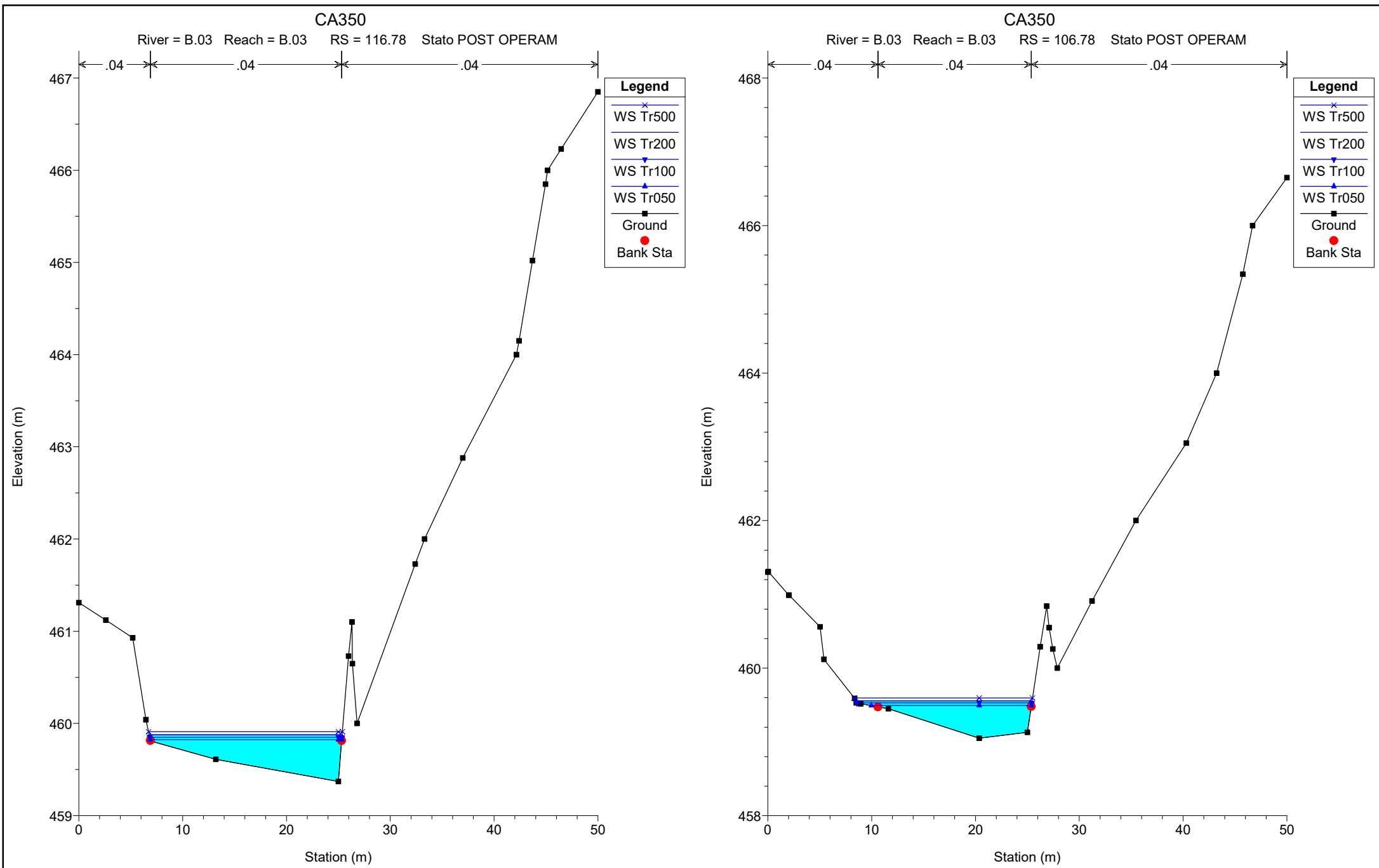


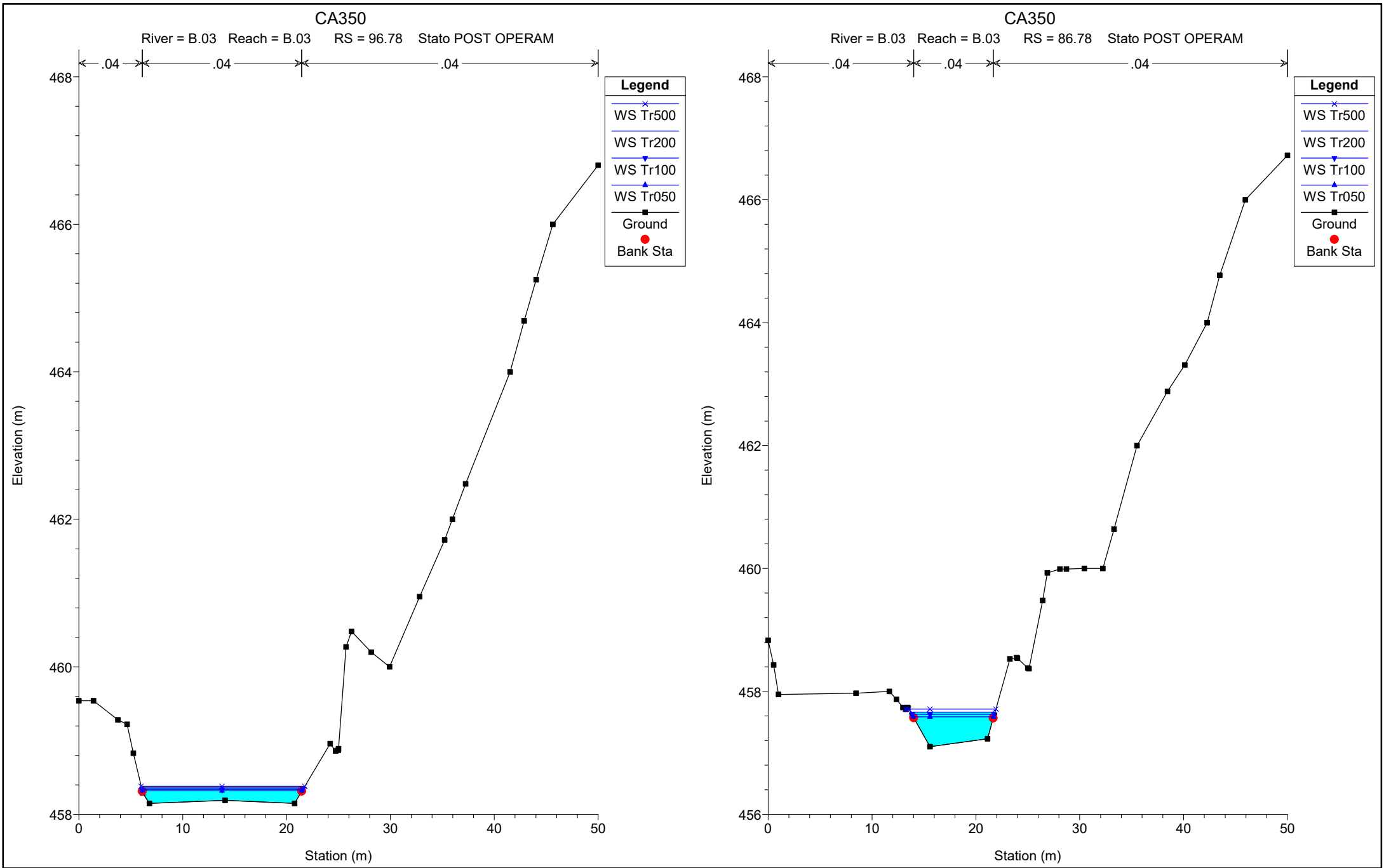


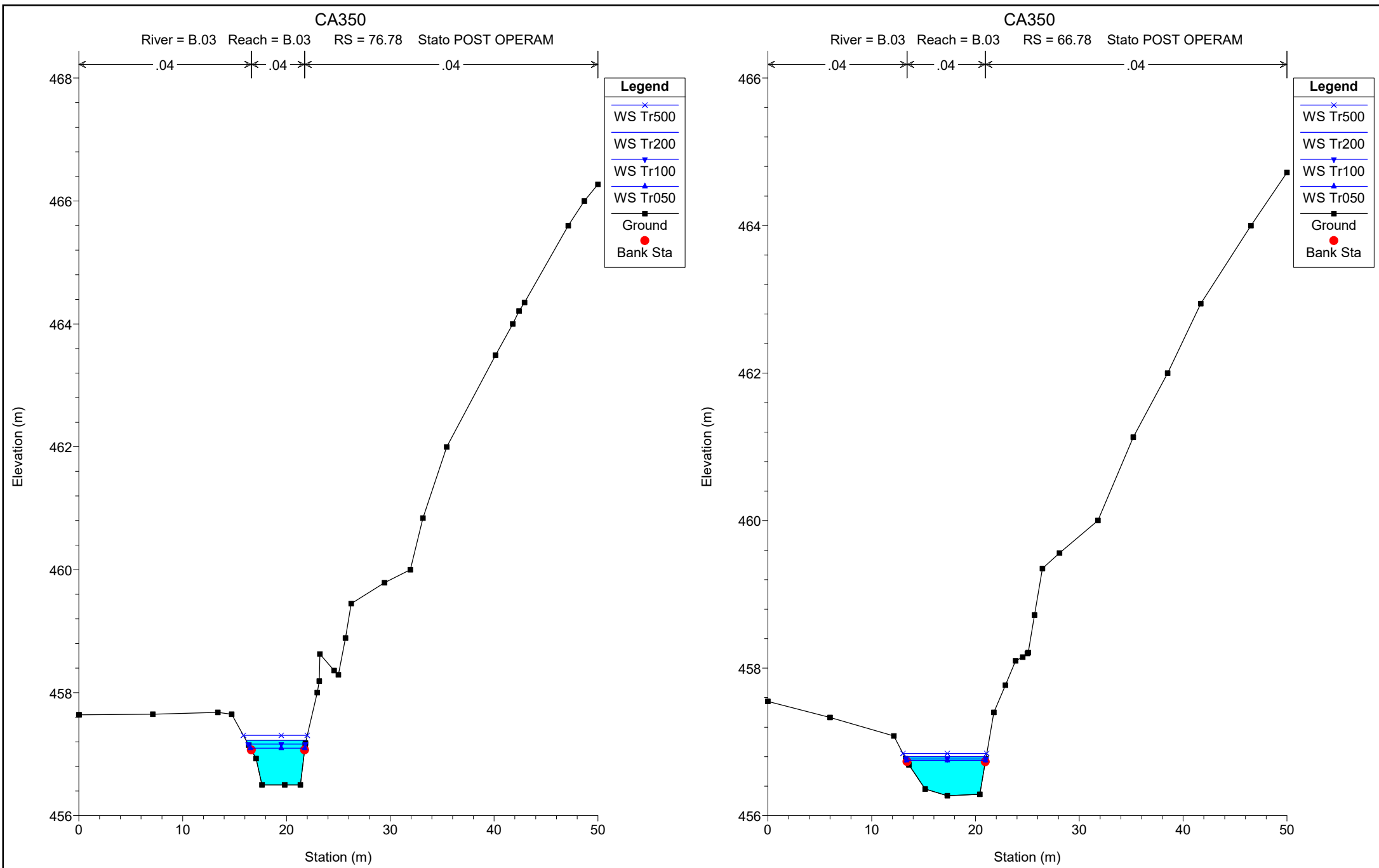




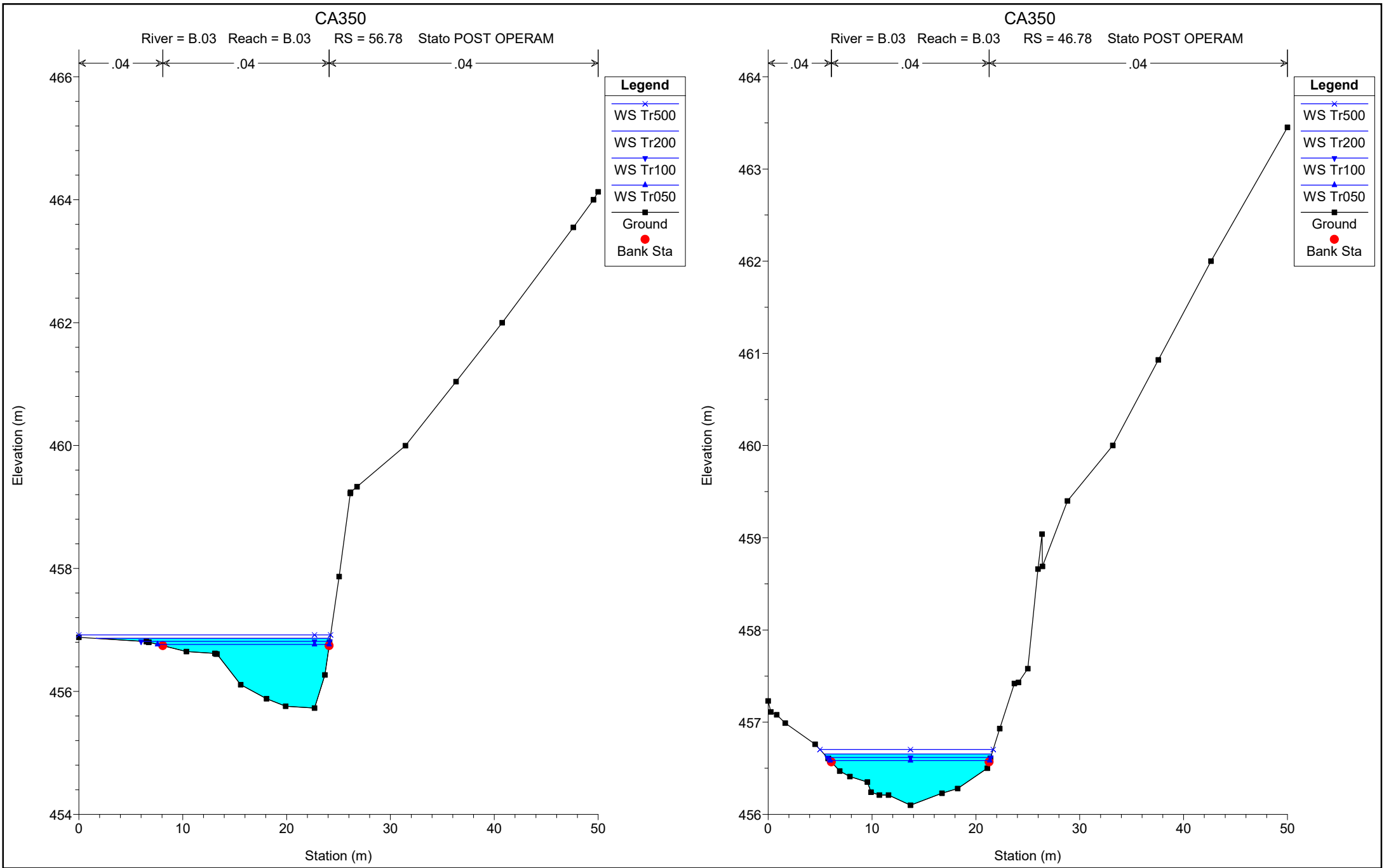


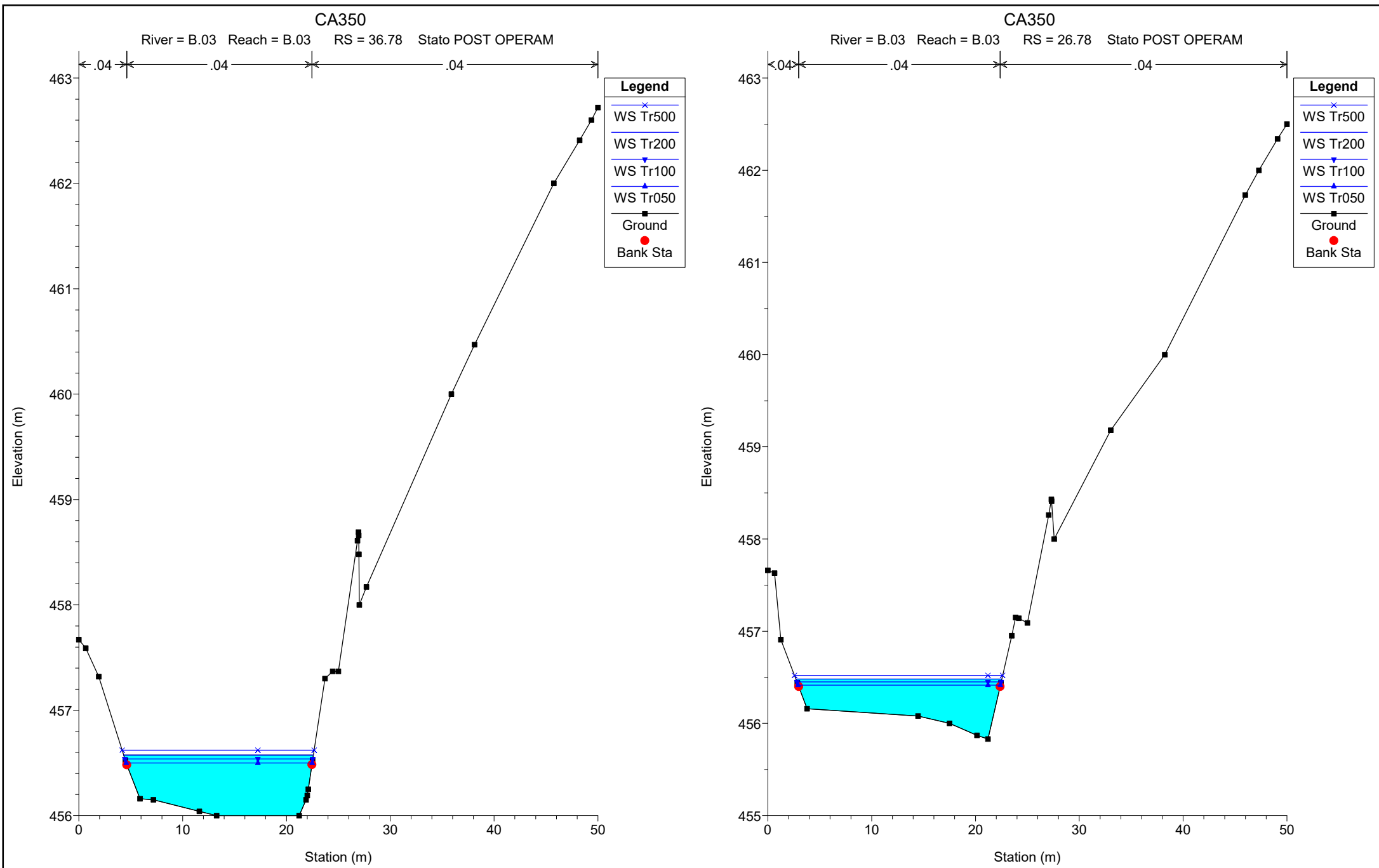


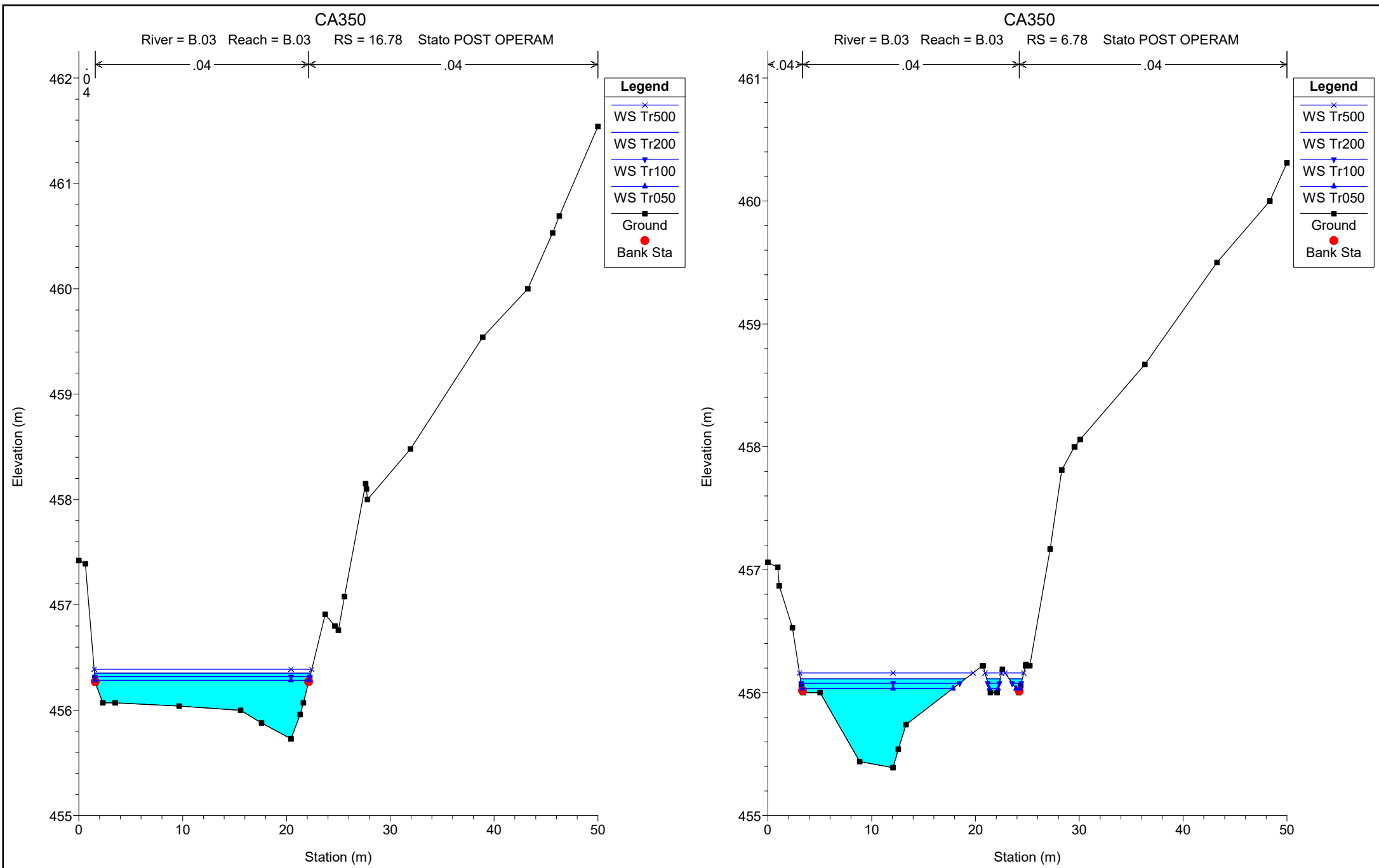






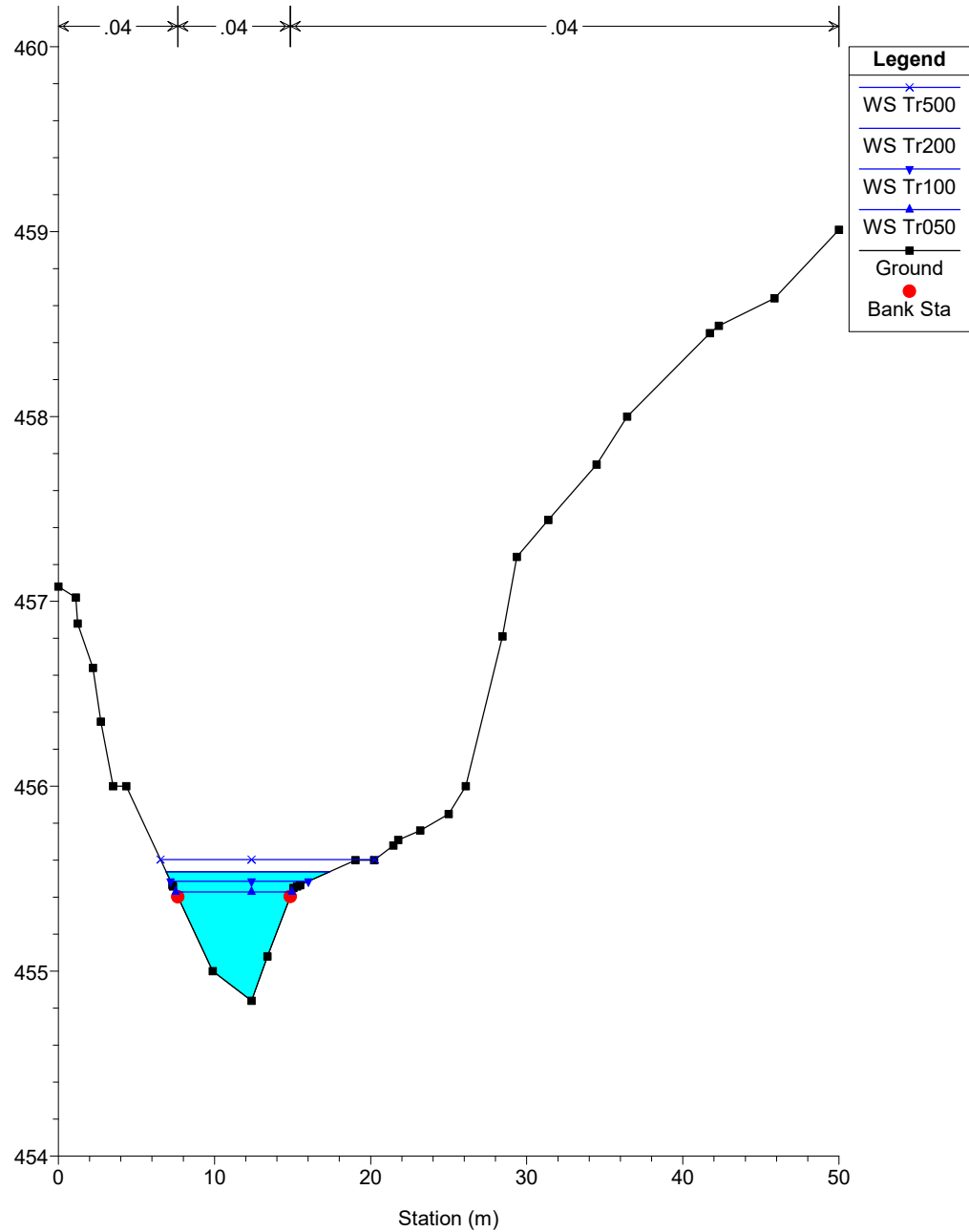


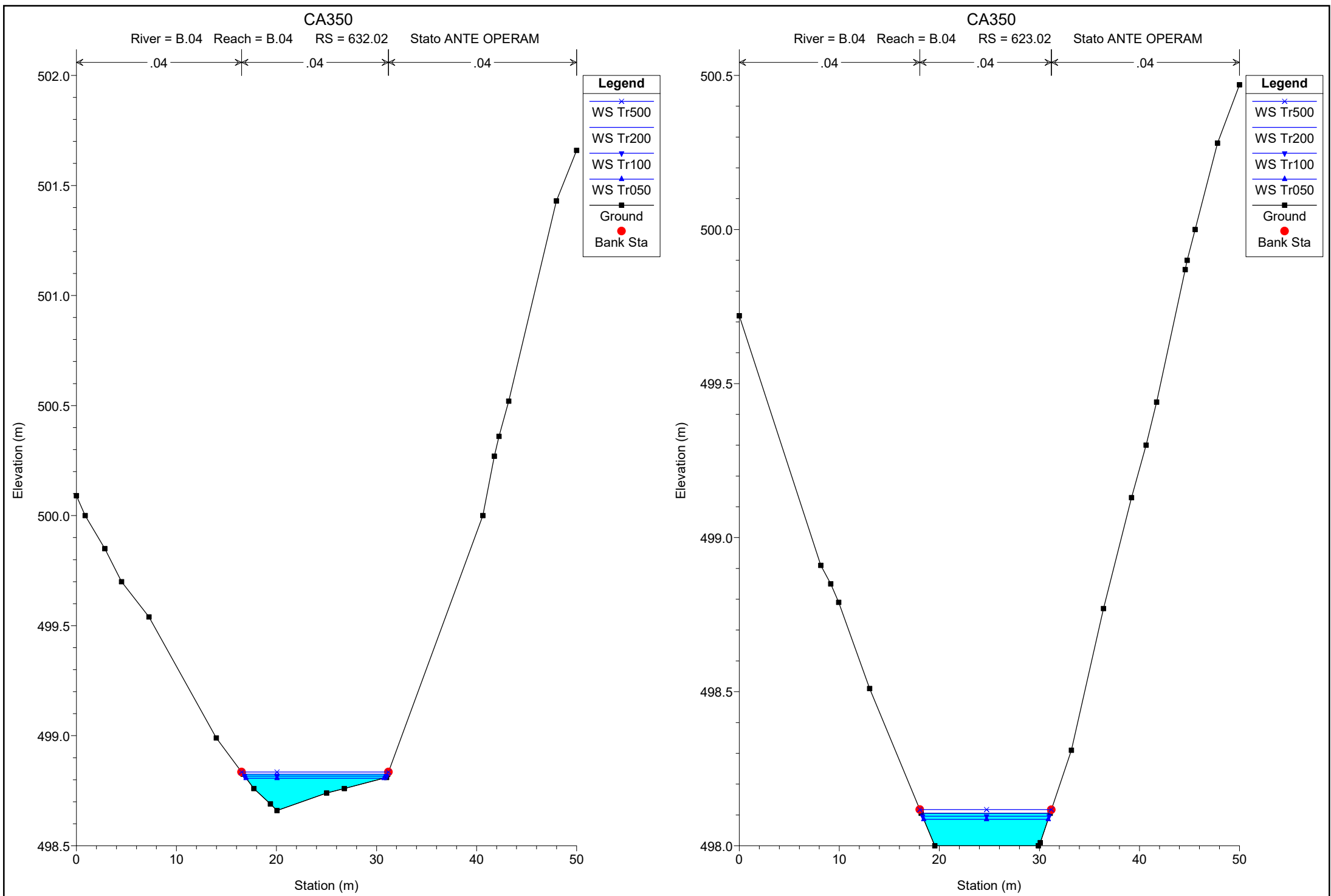


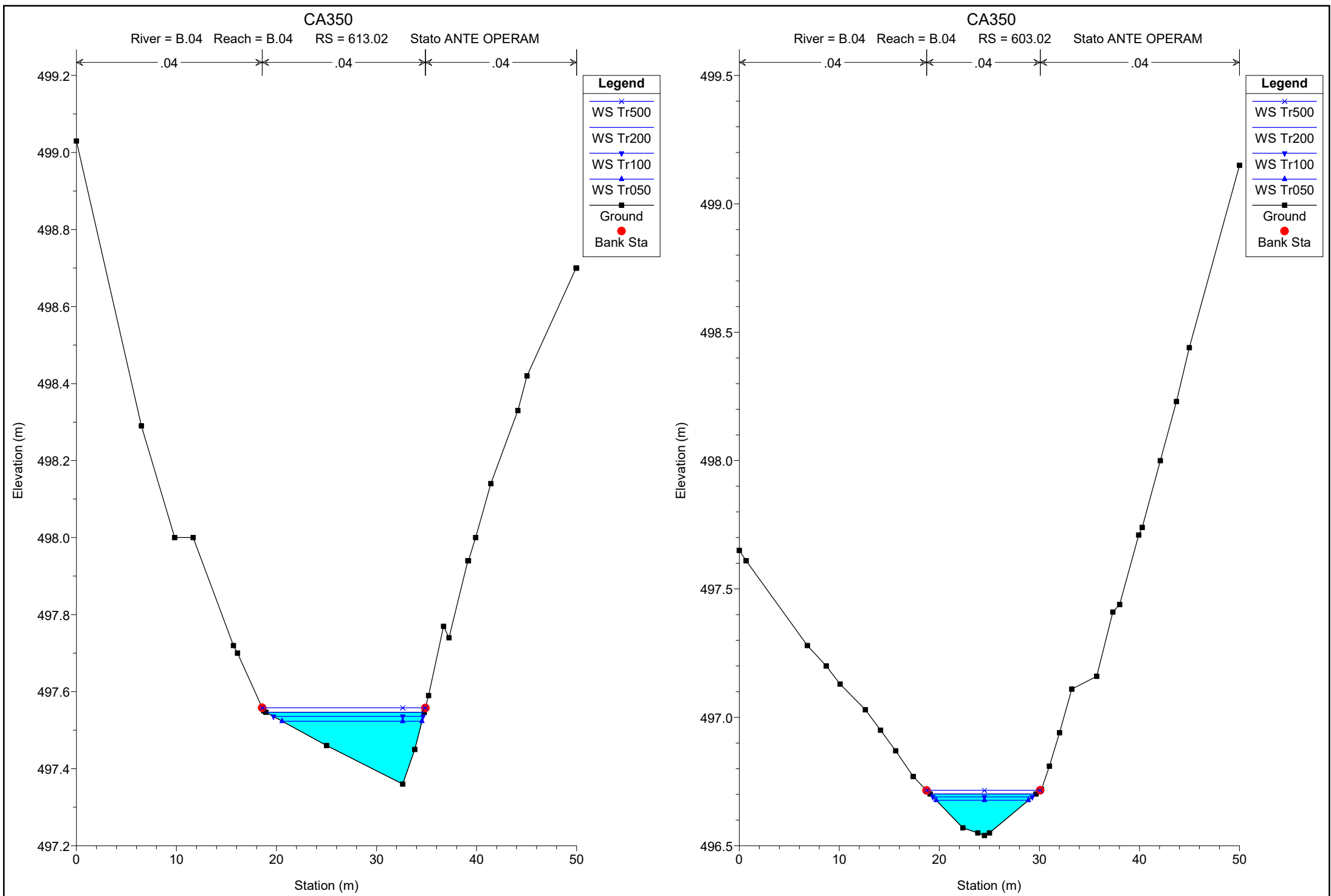


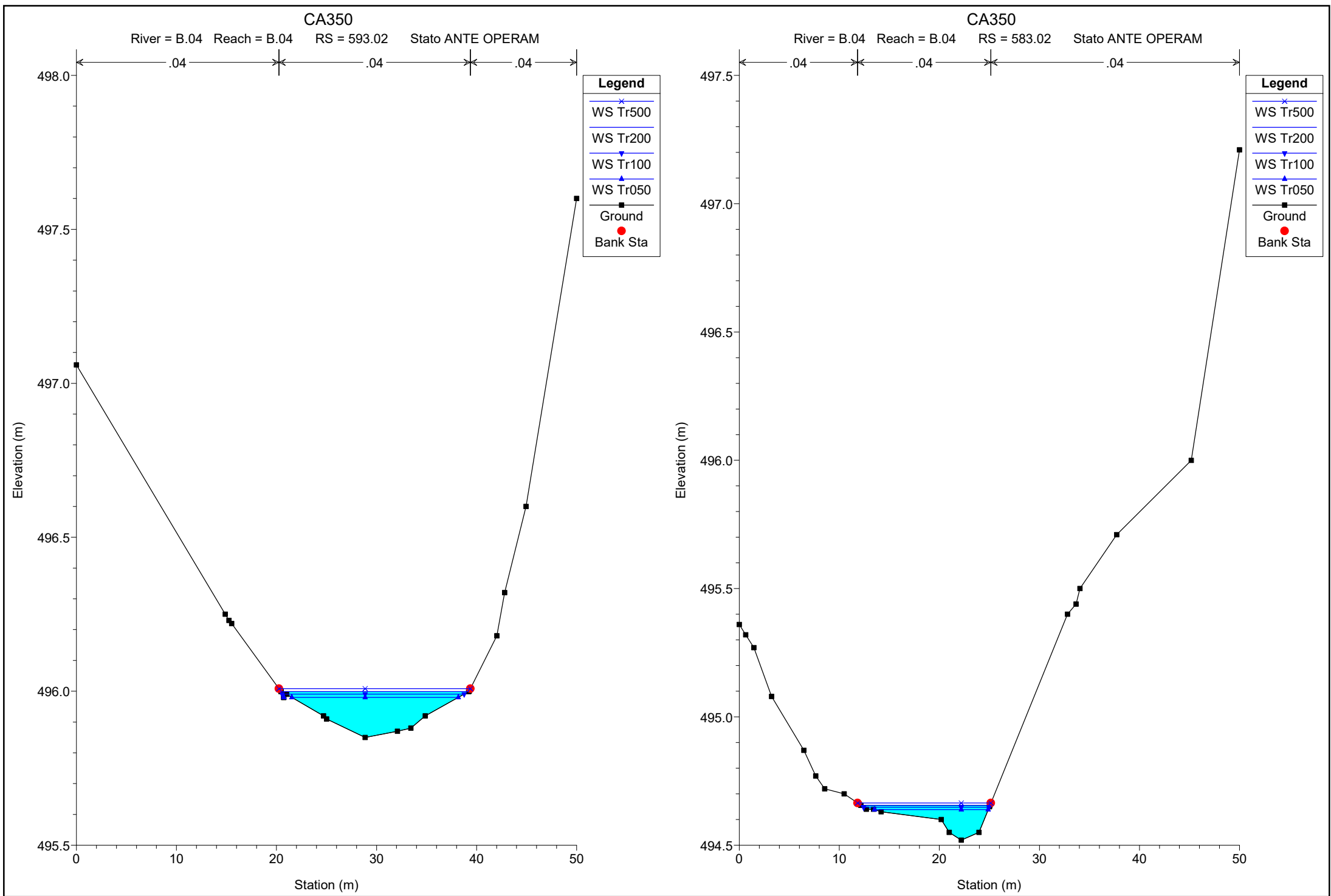
# CA350

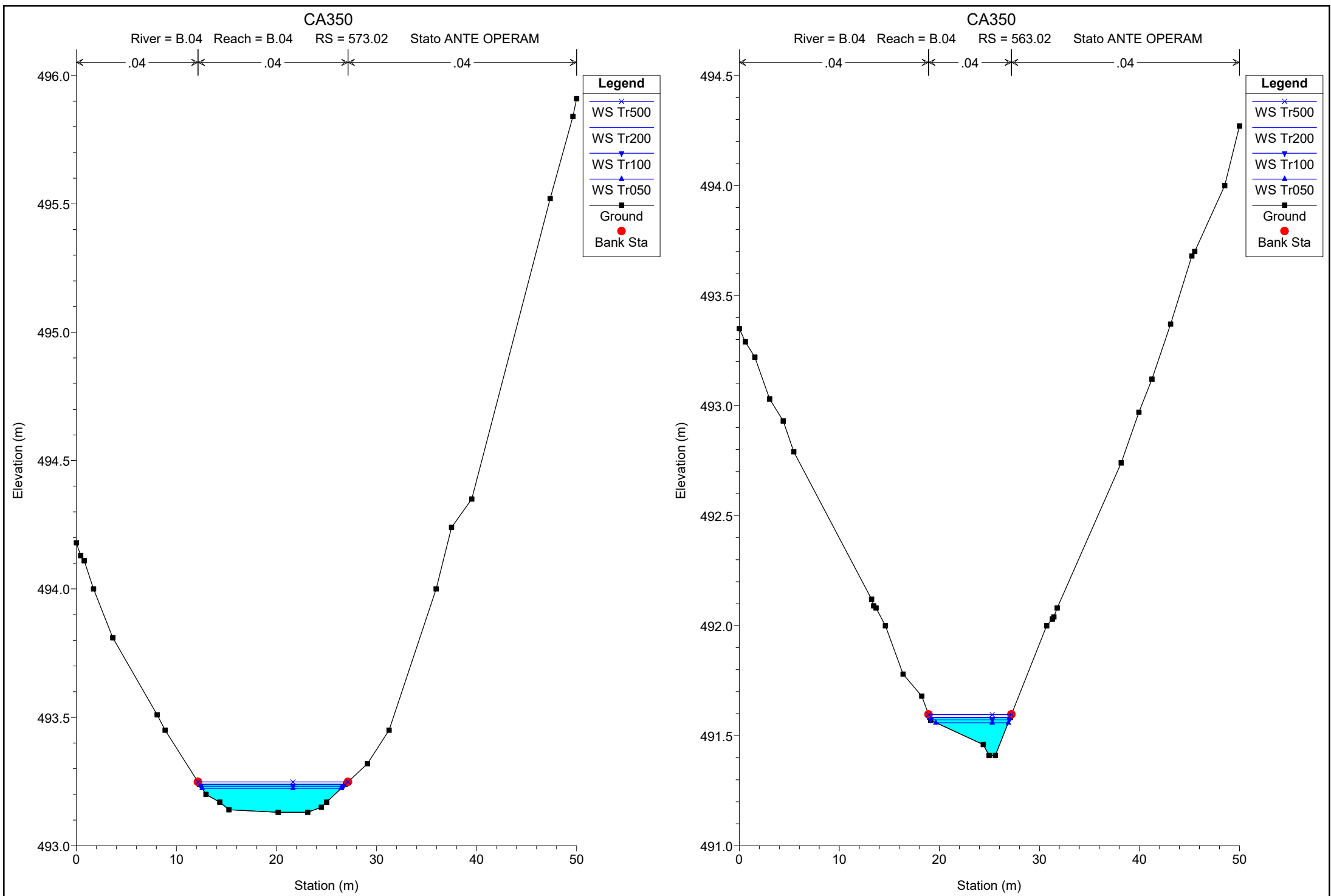
River = B.03 Reach = B.03 RS = 0 Stato POST OPERAM



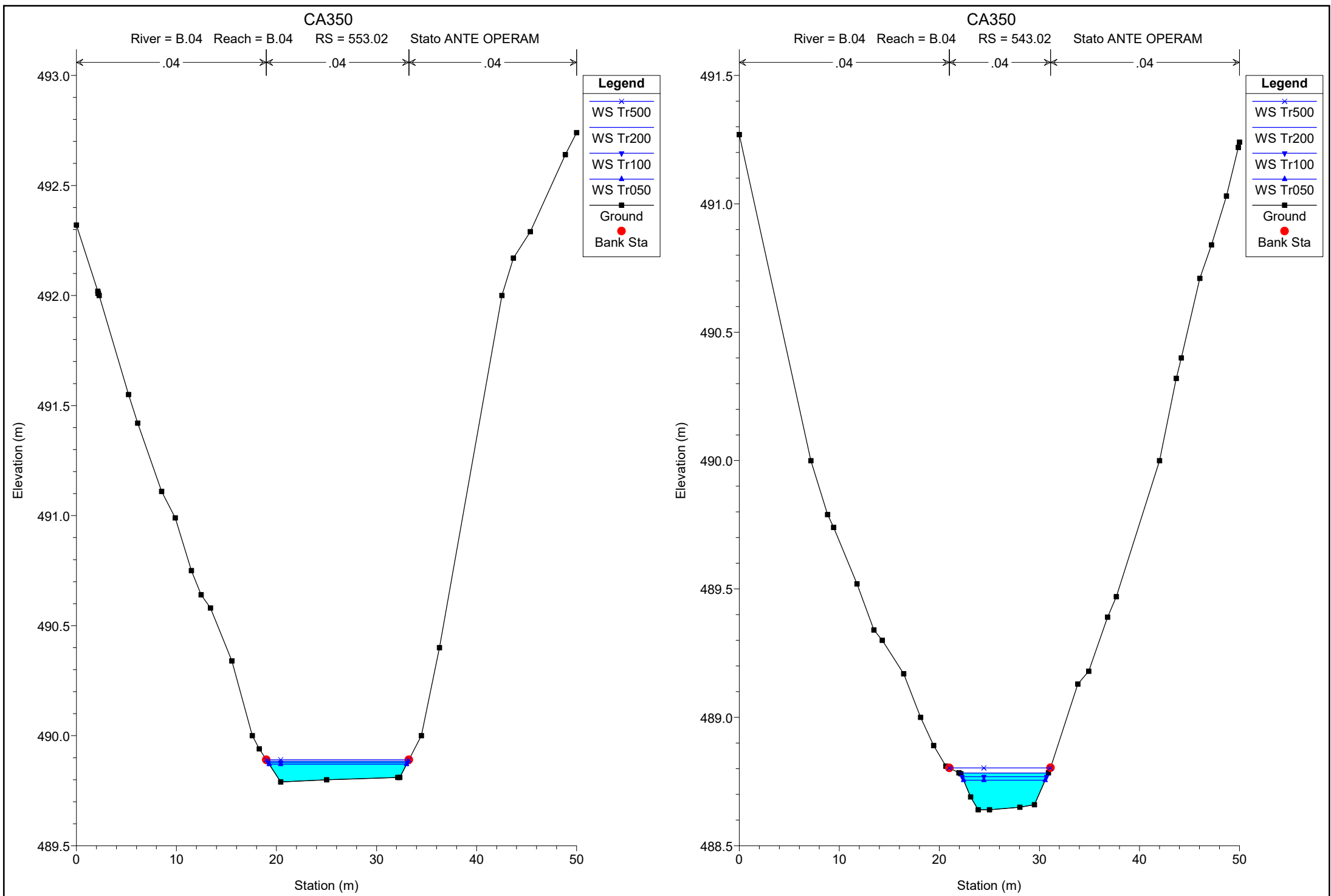


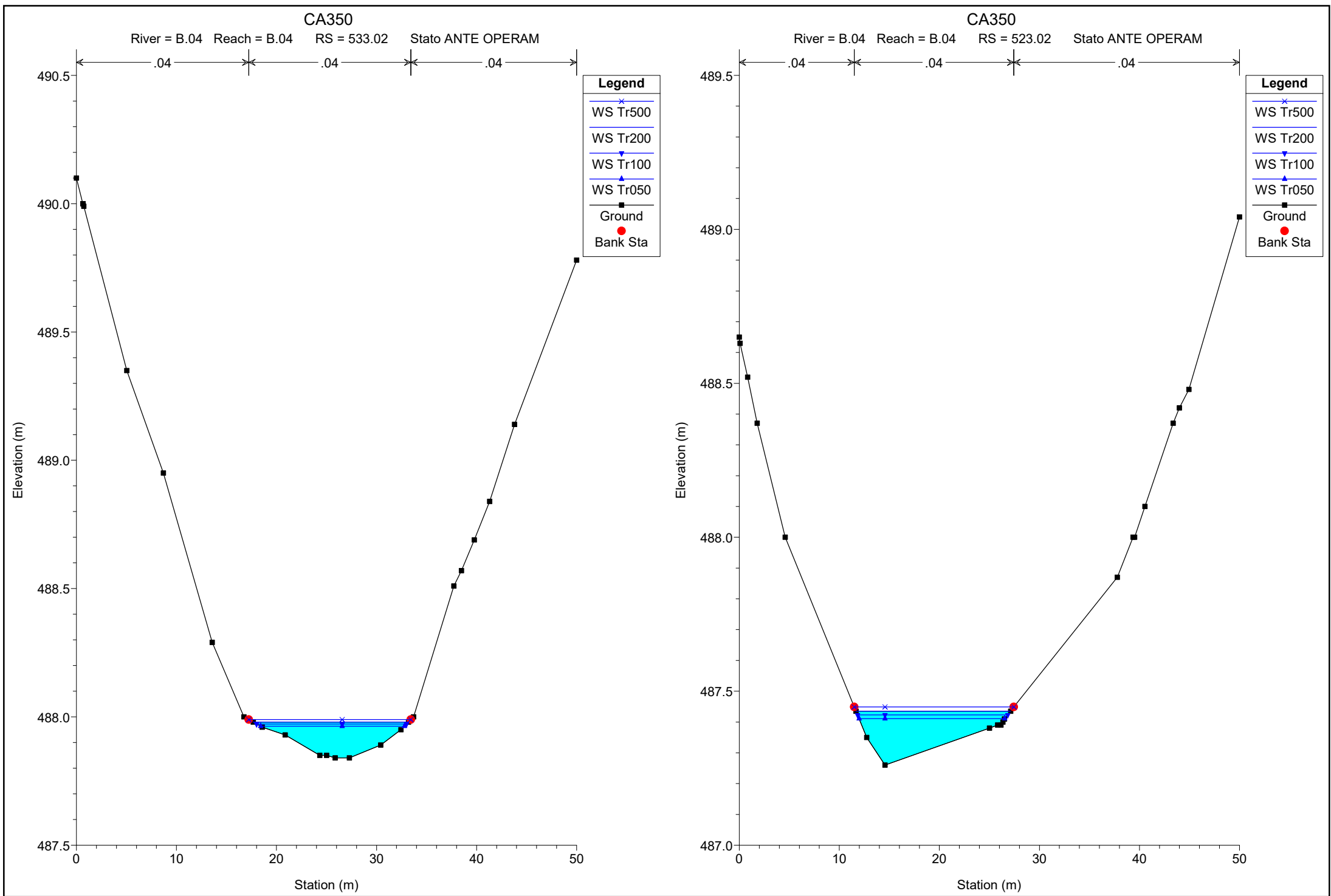


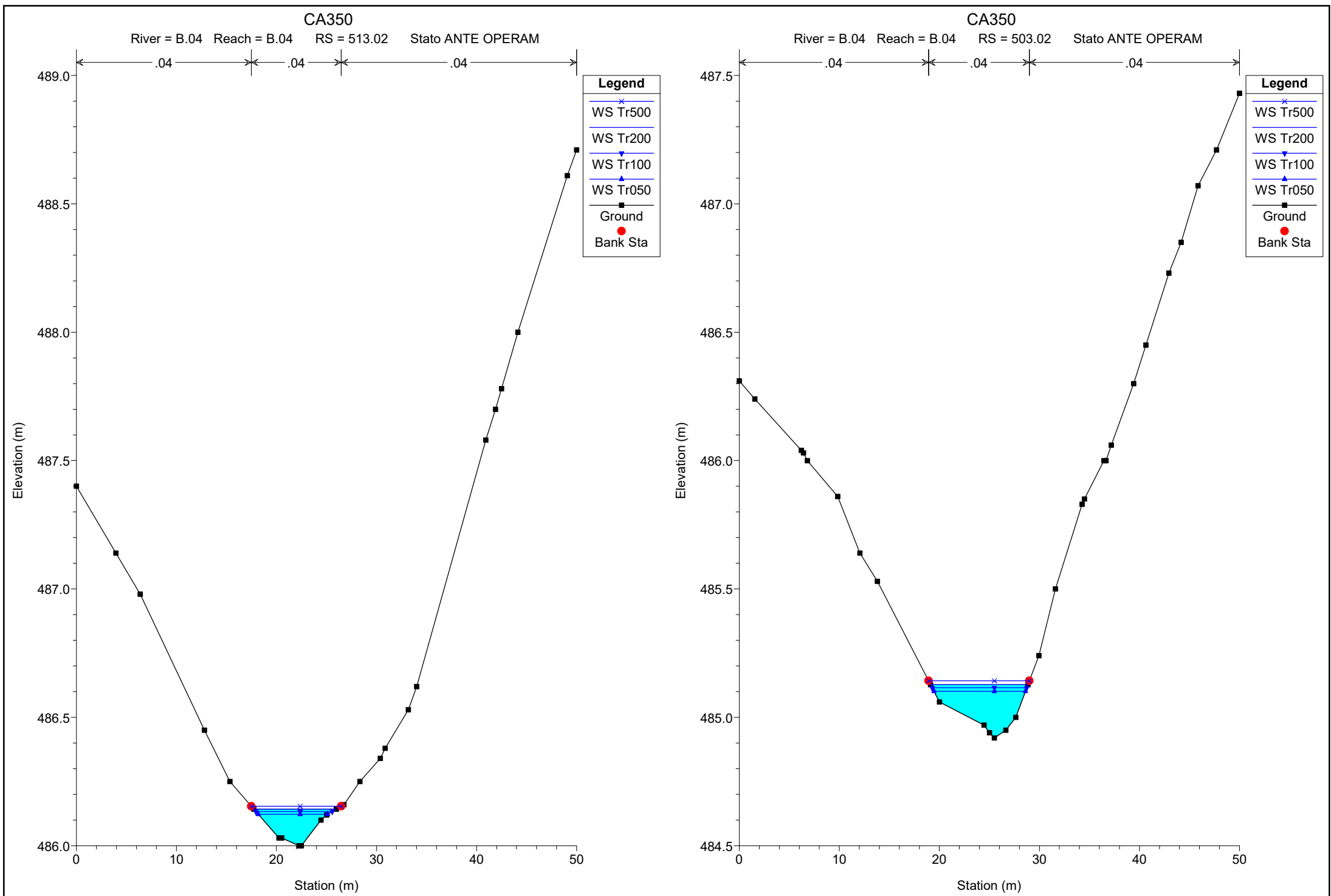


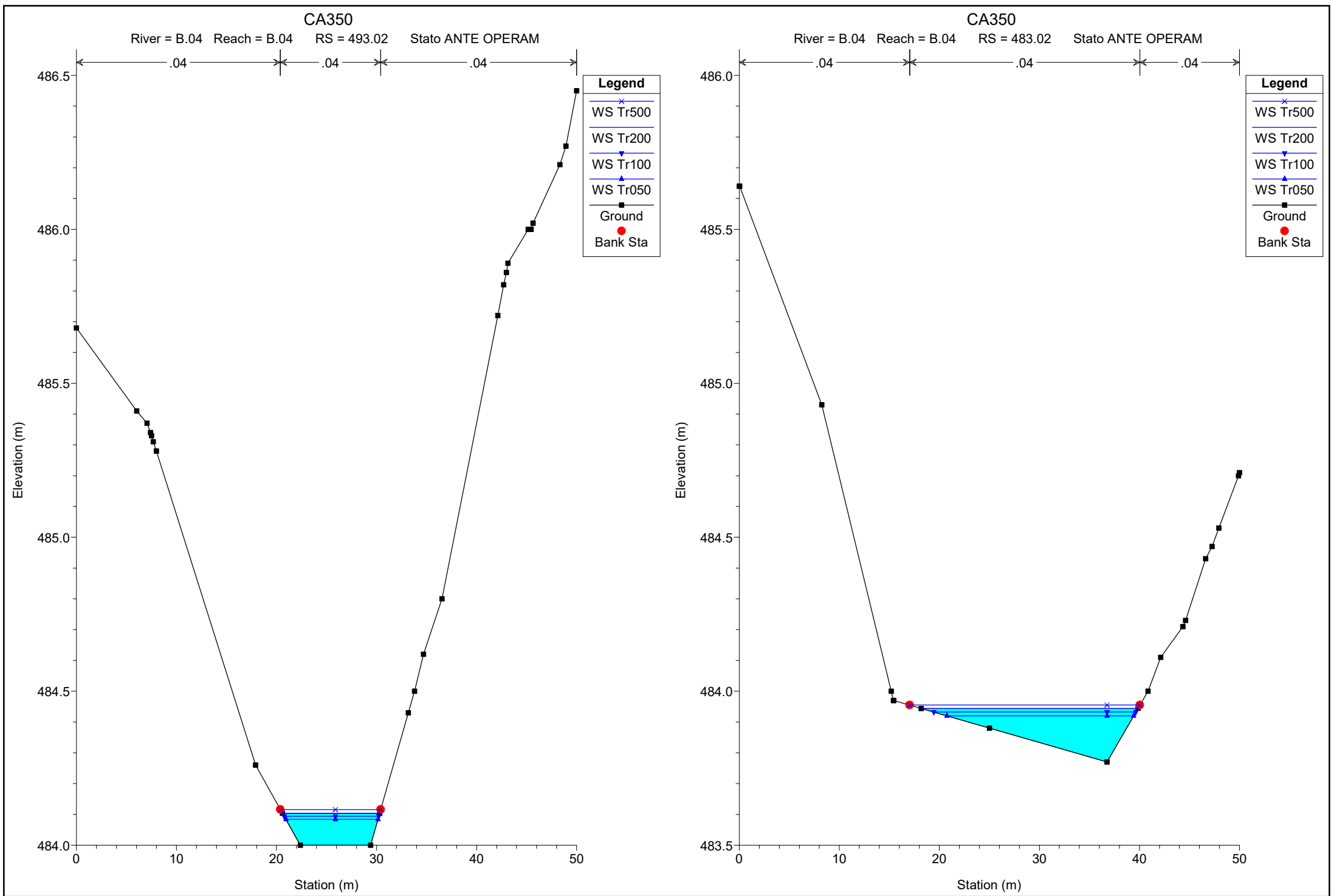


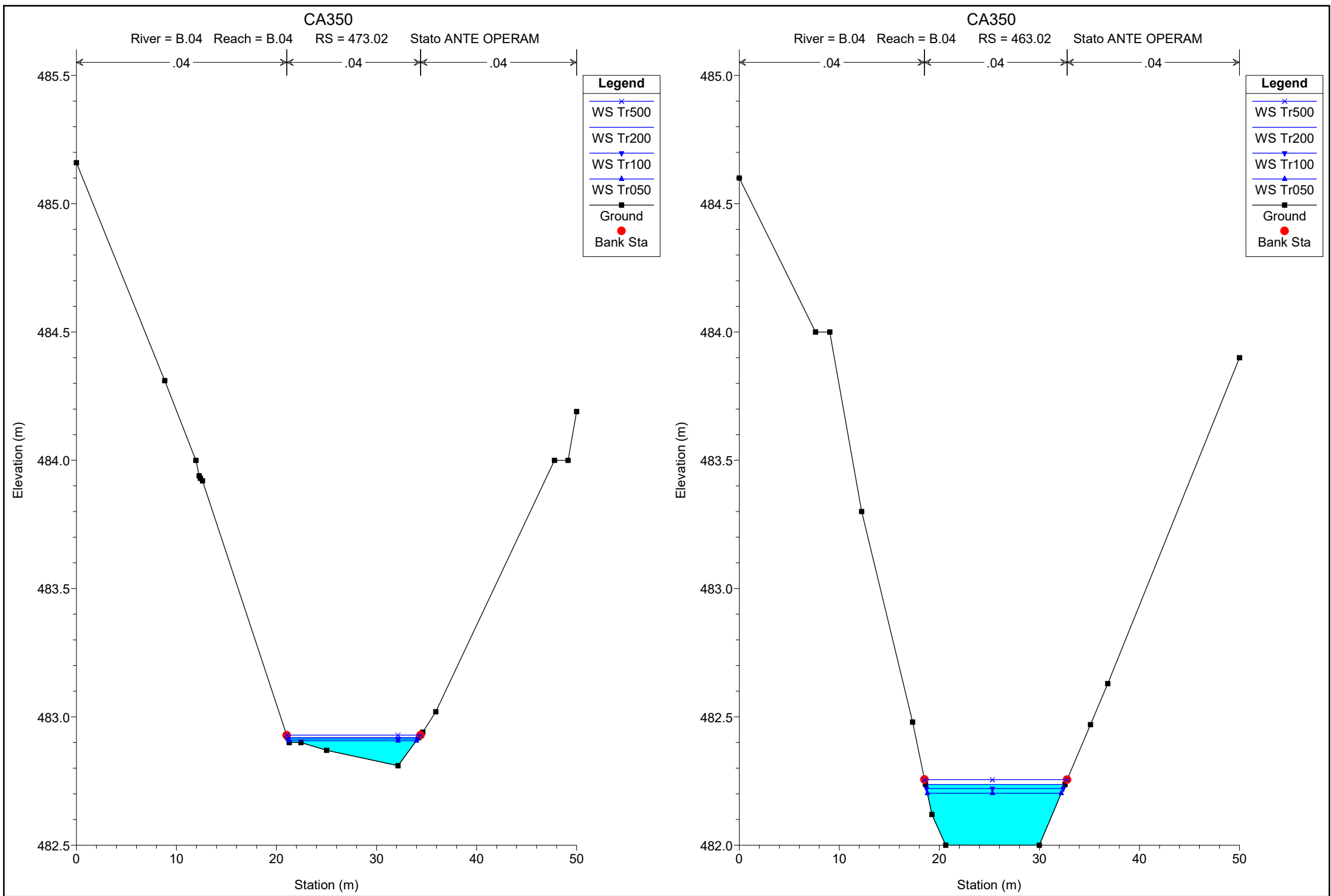


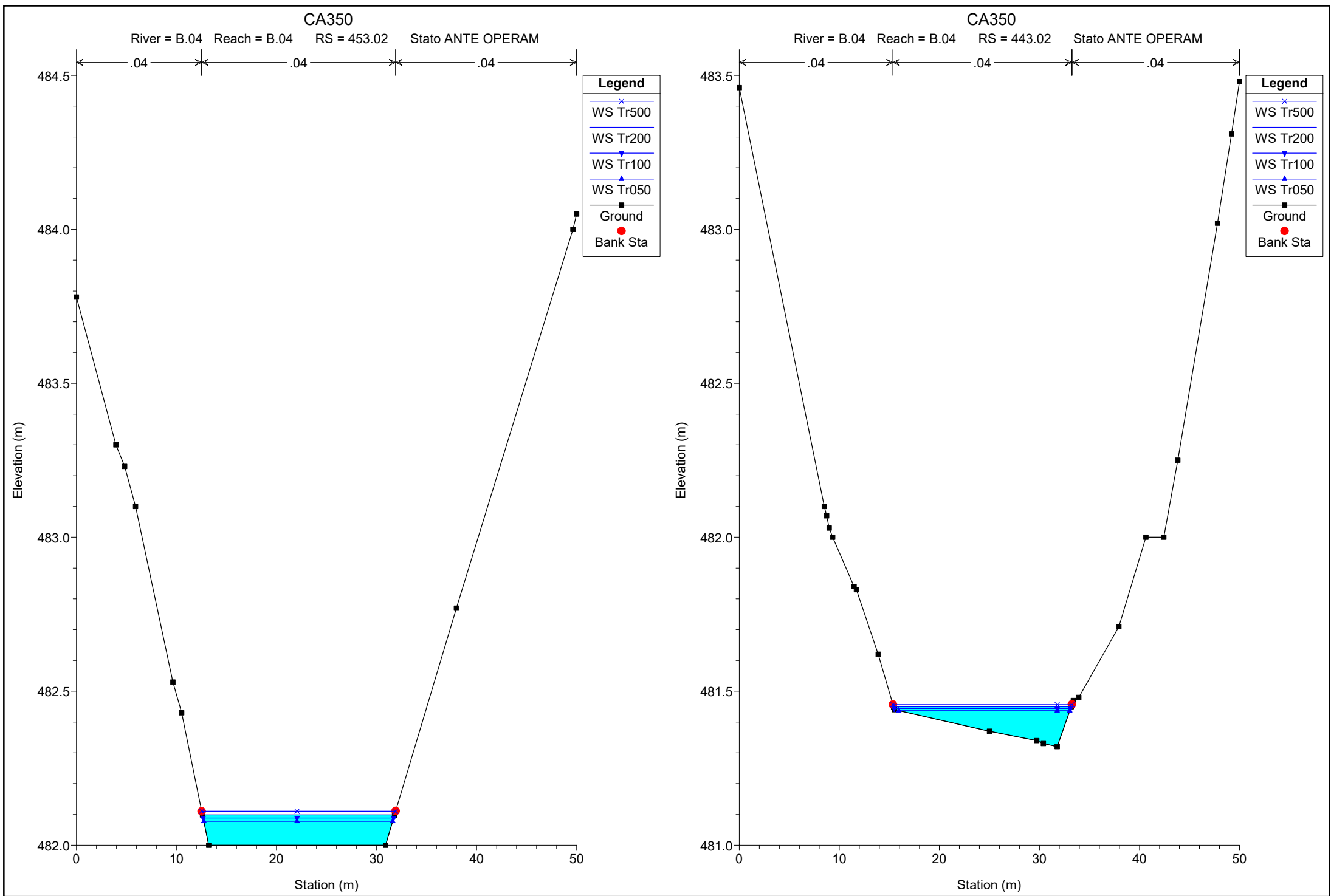


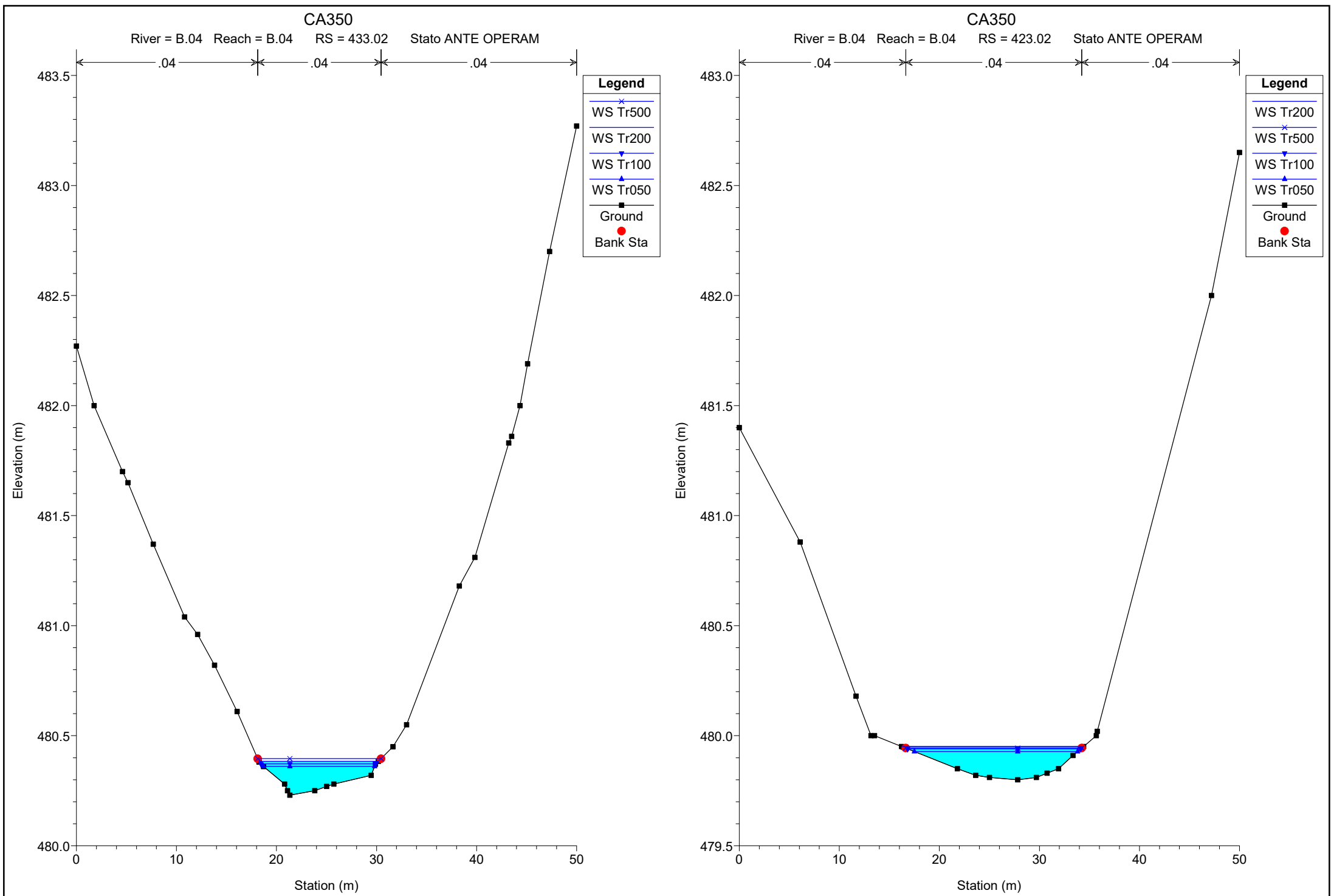


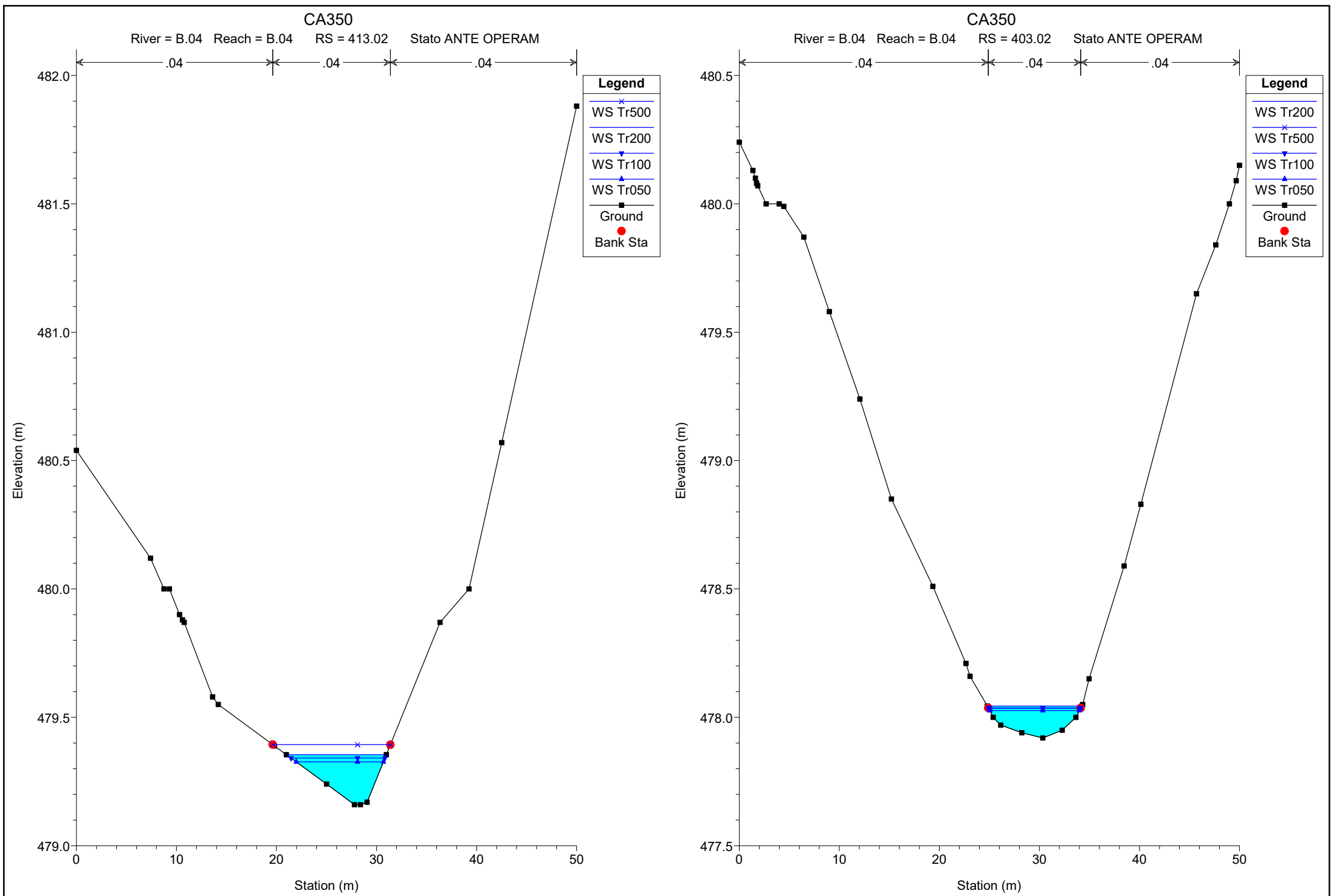




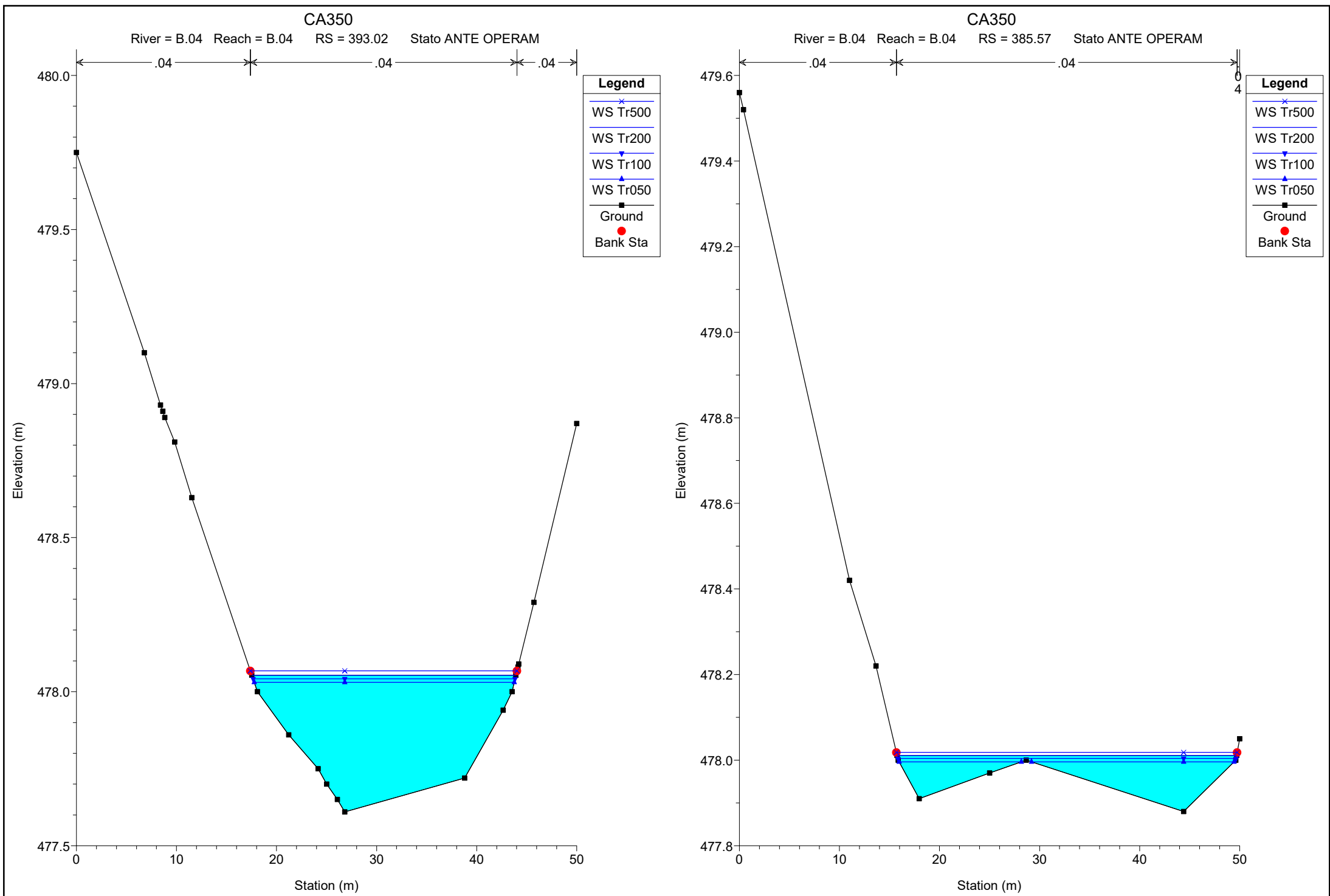


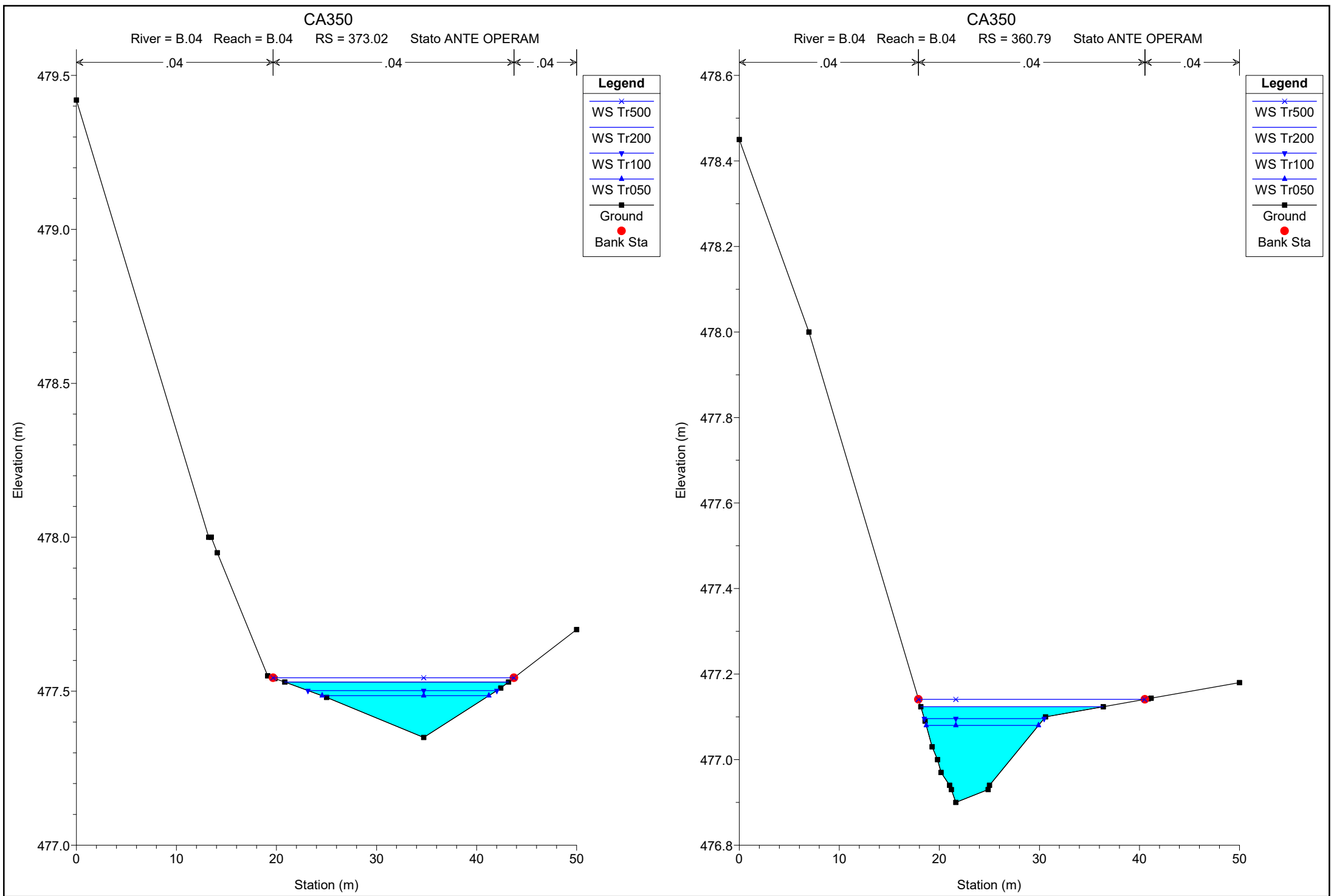


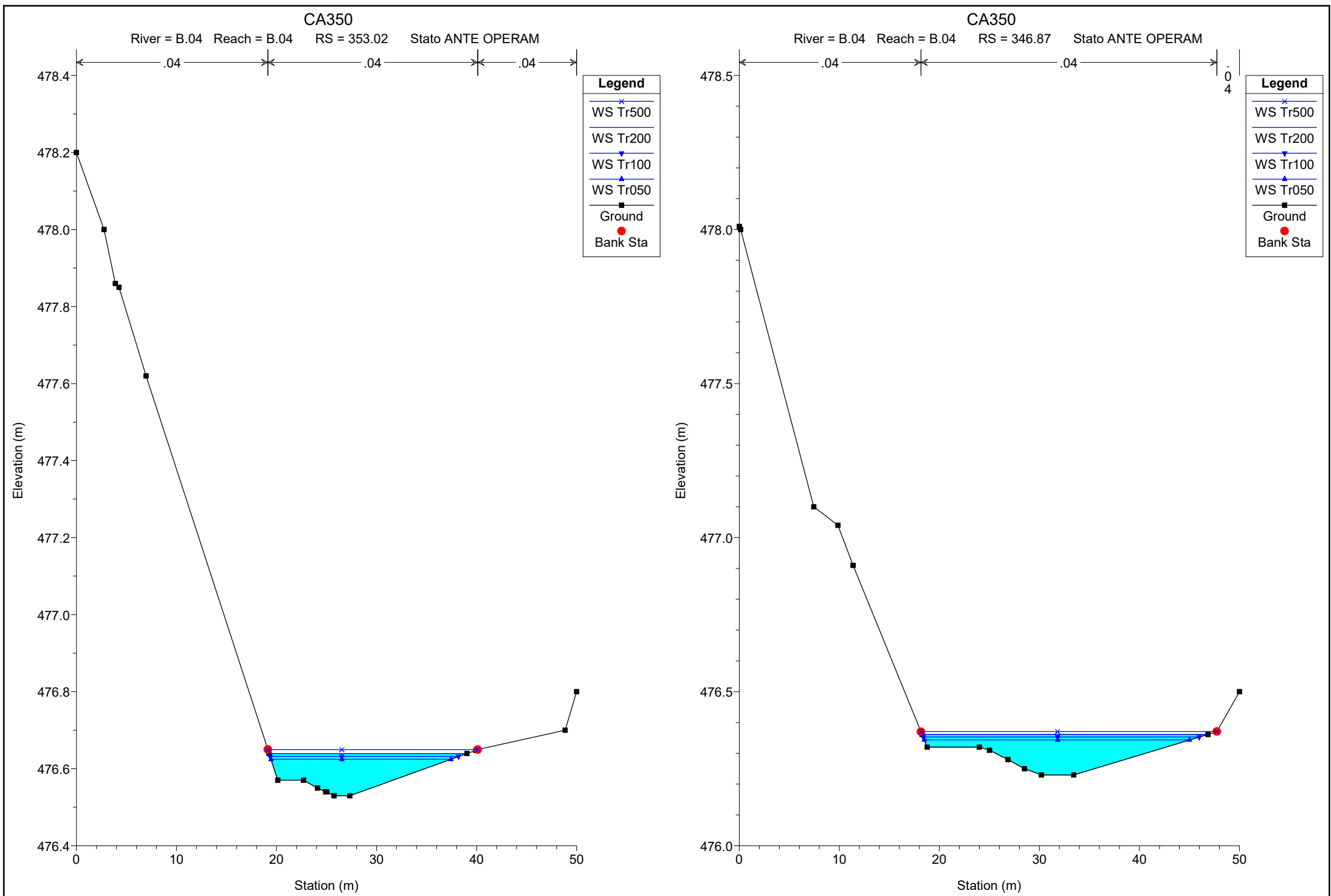


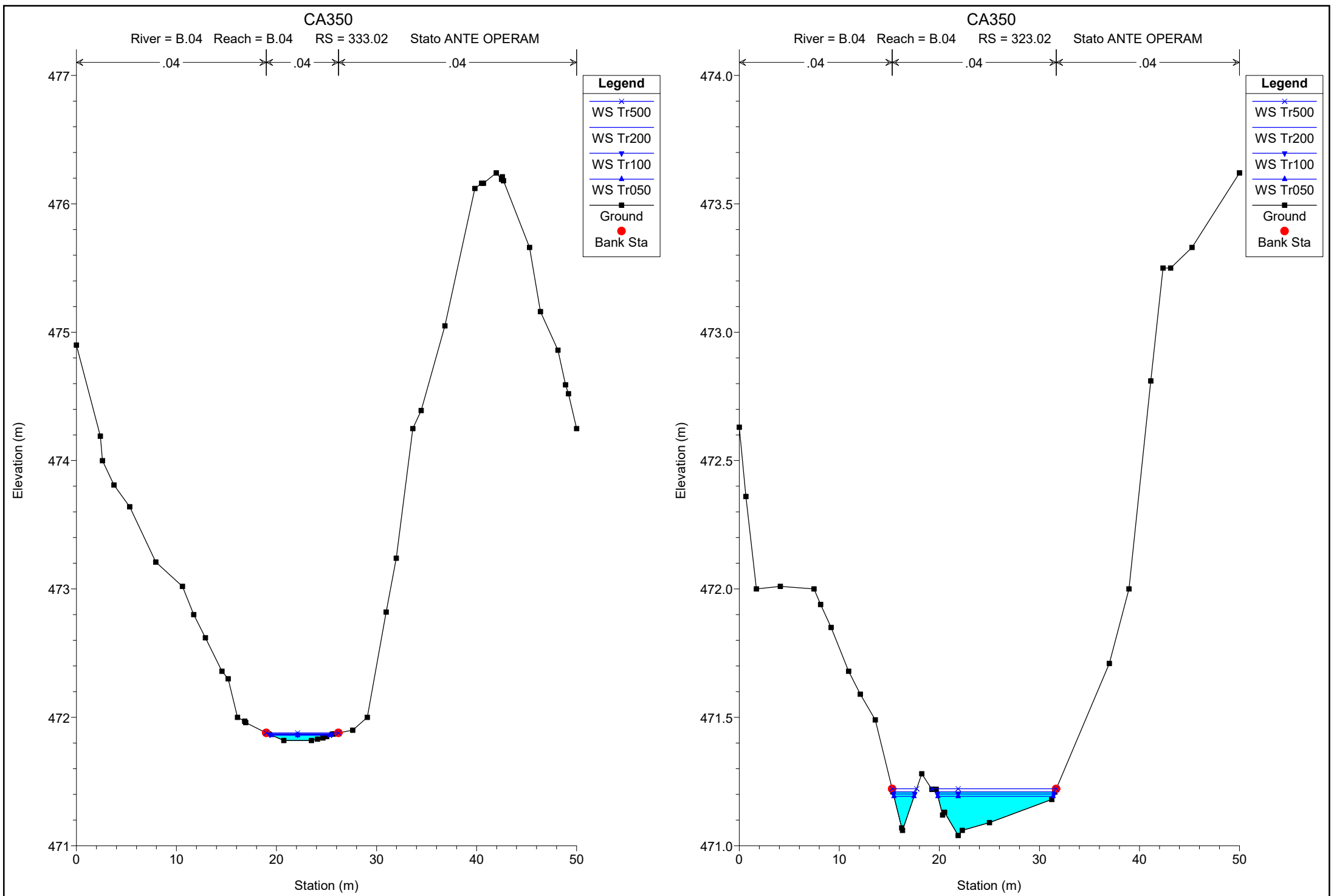


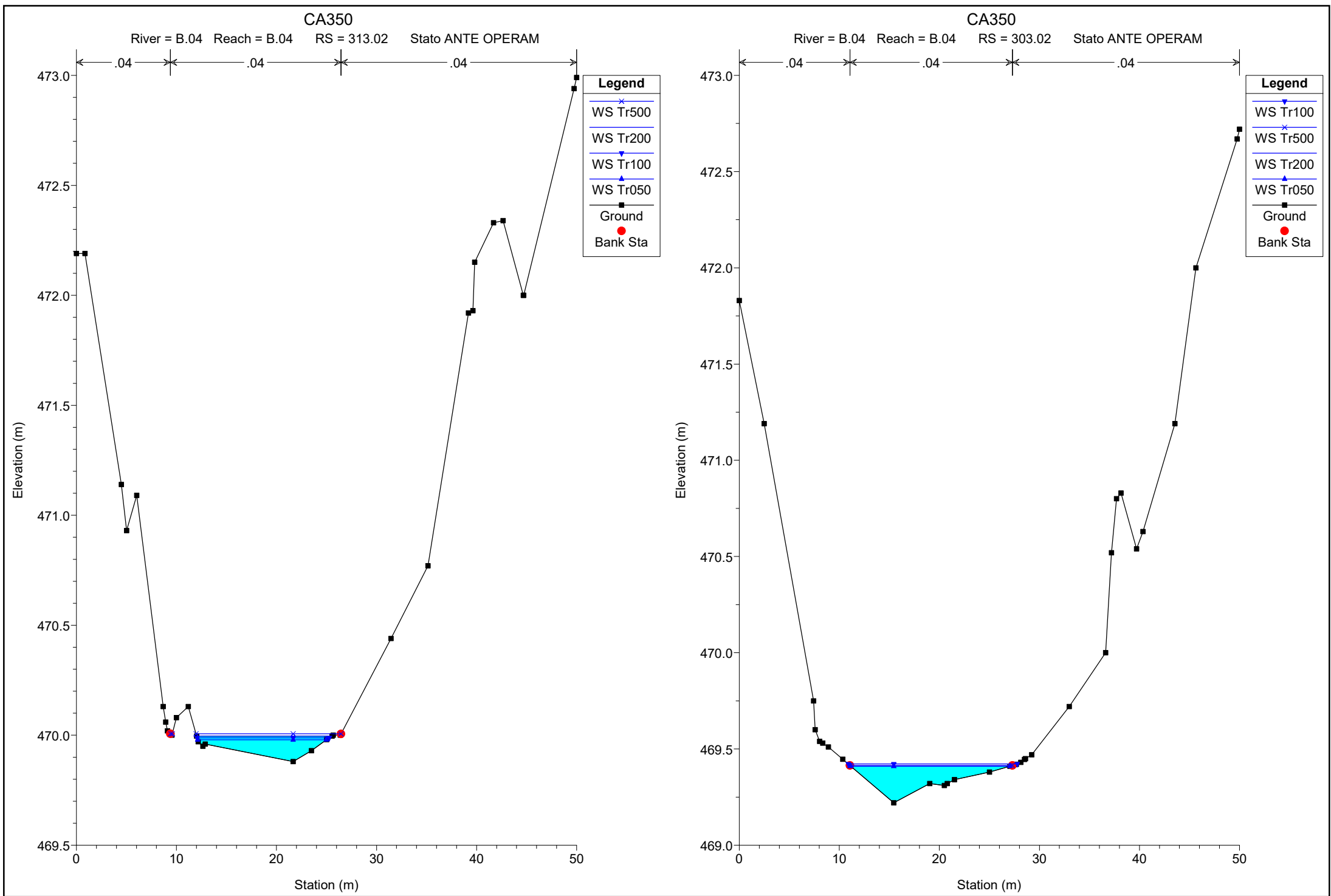


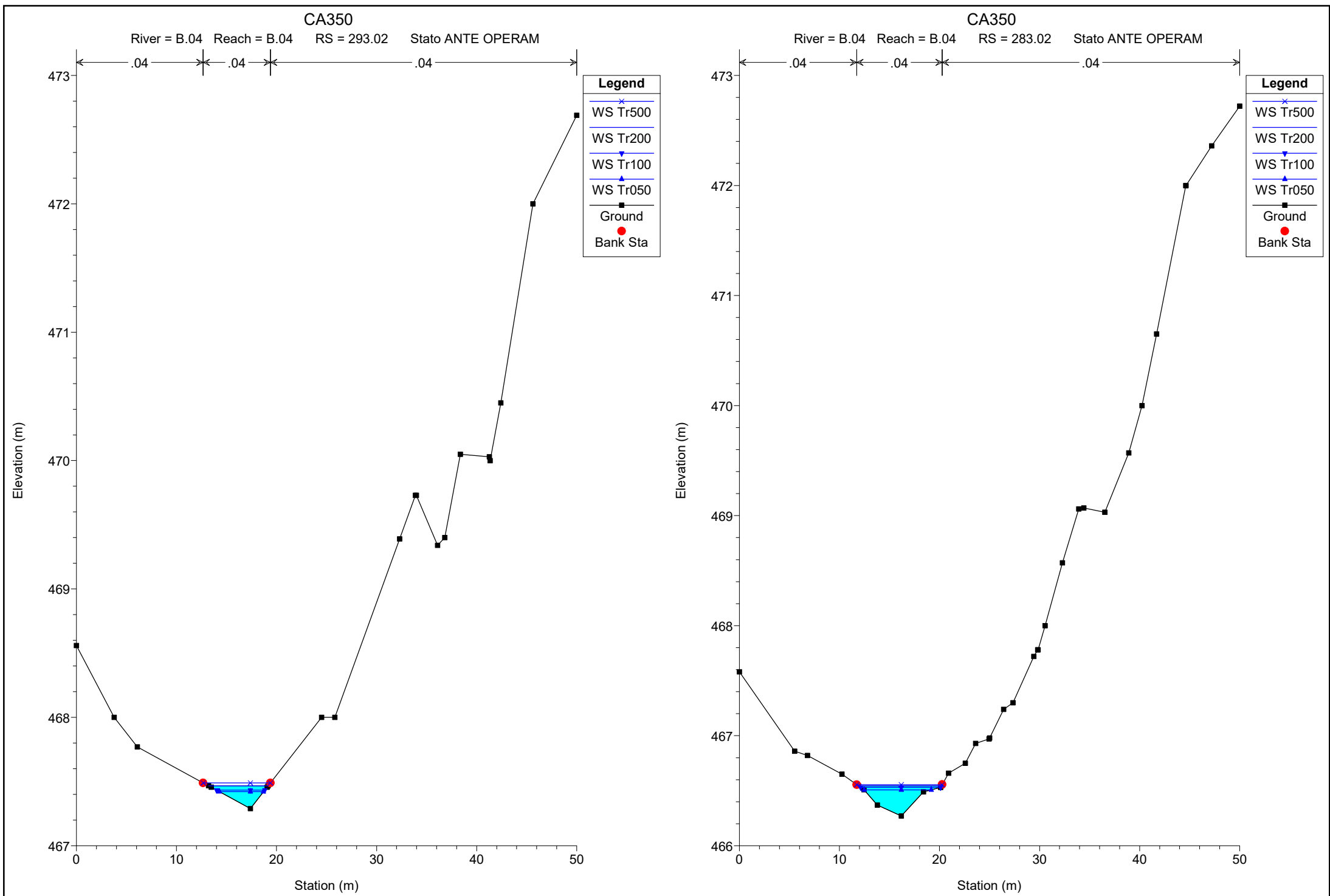


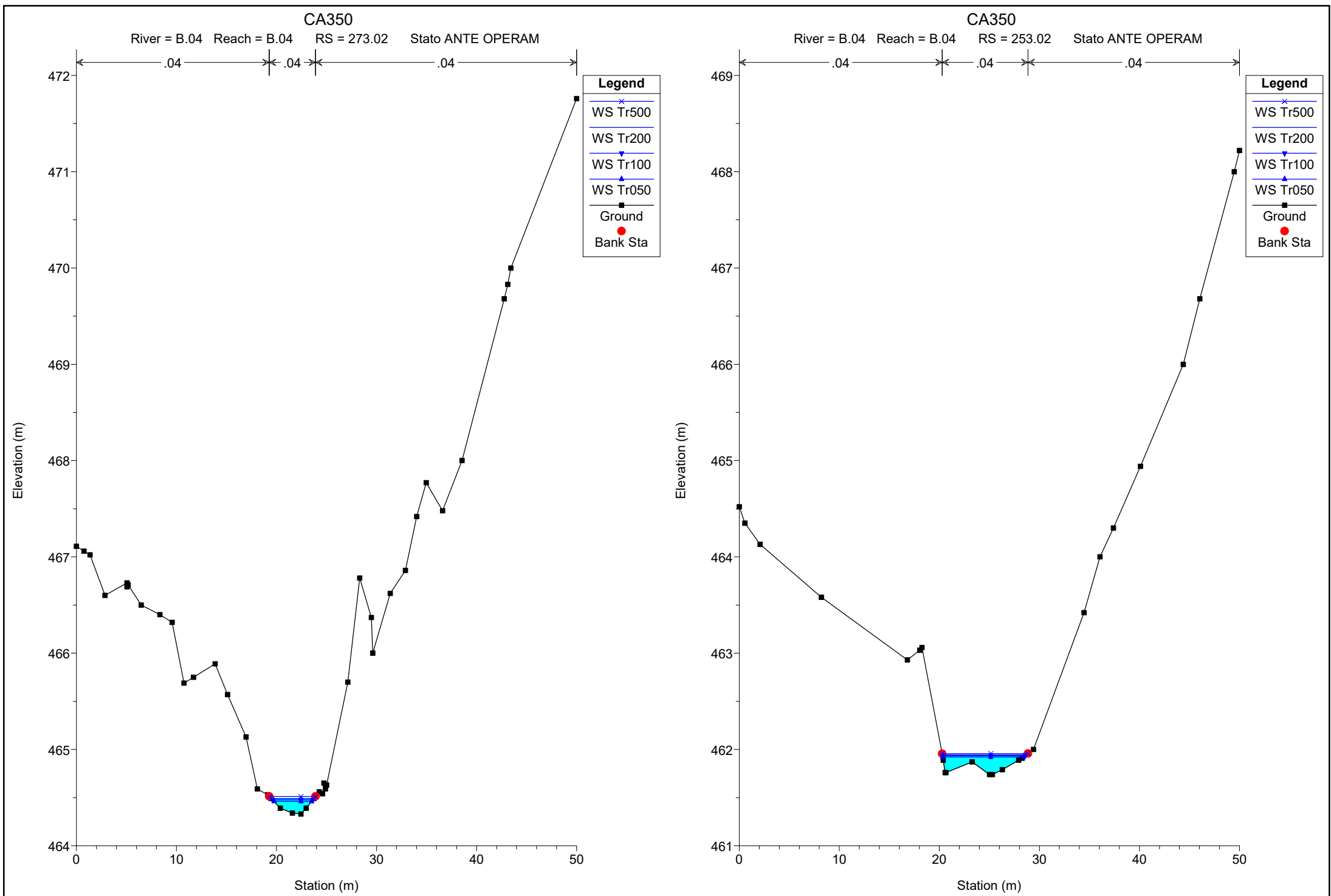


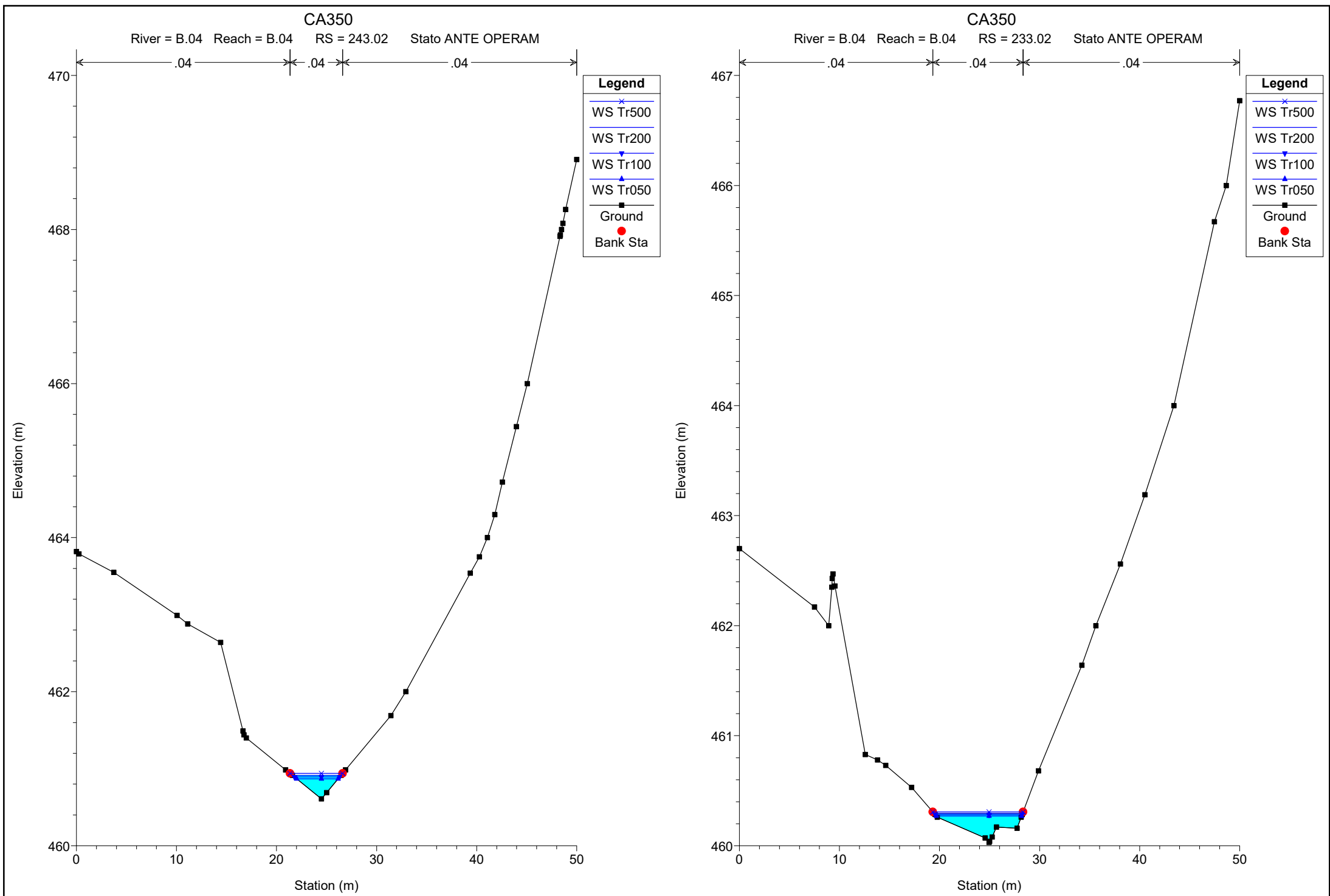




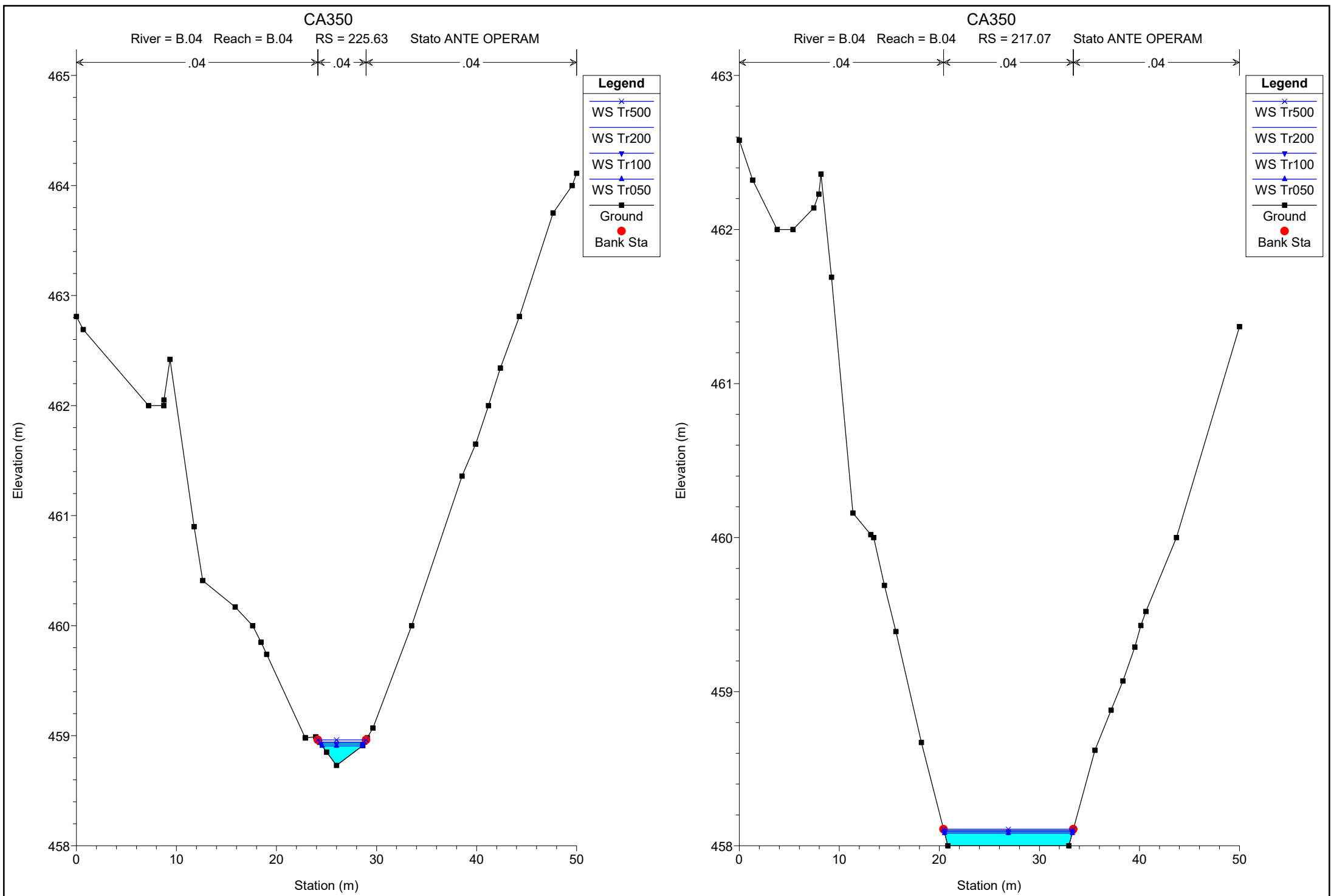


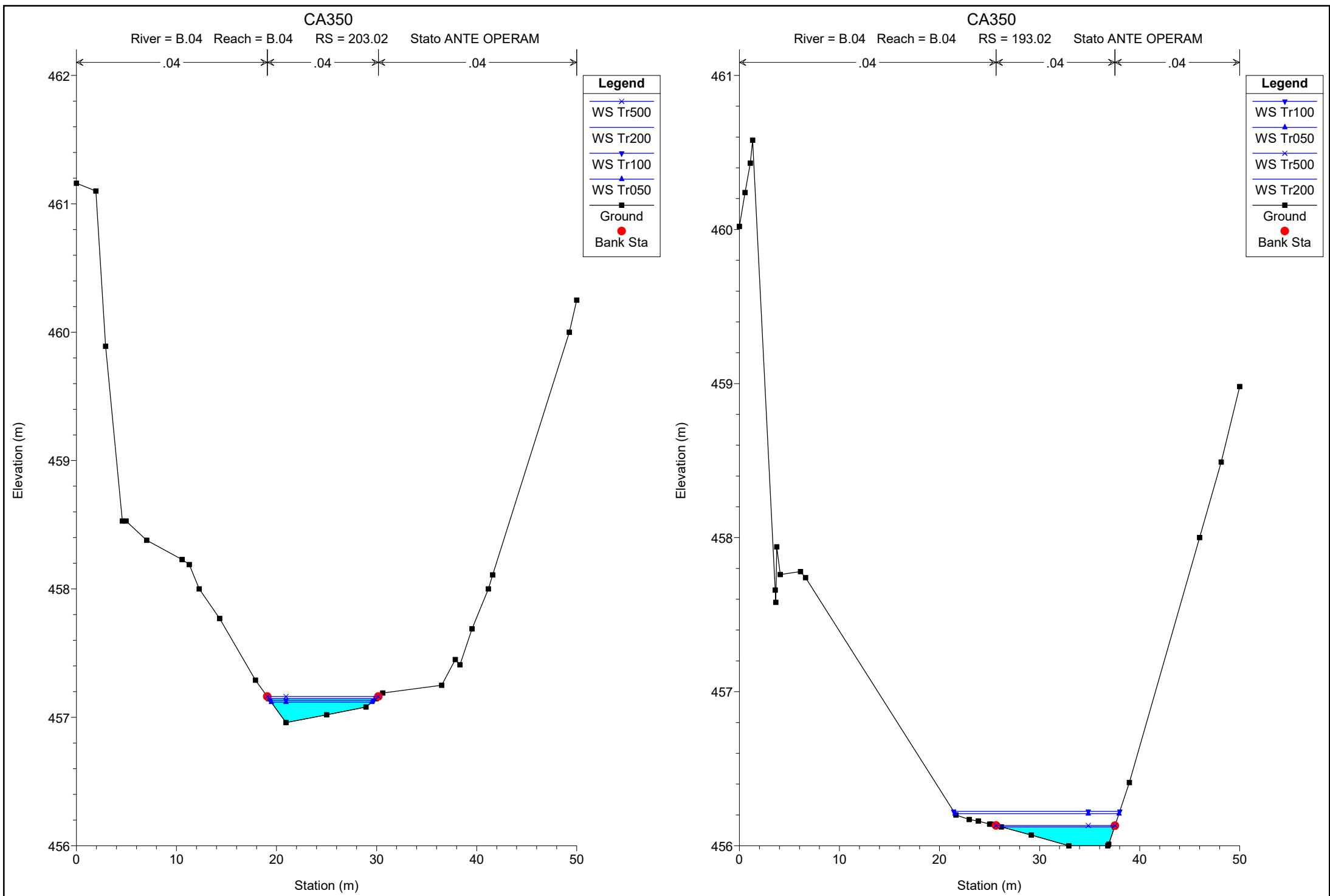


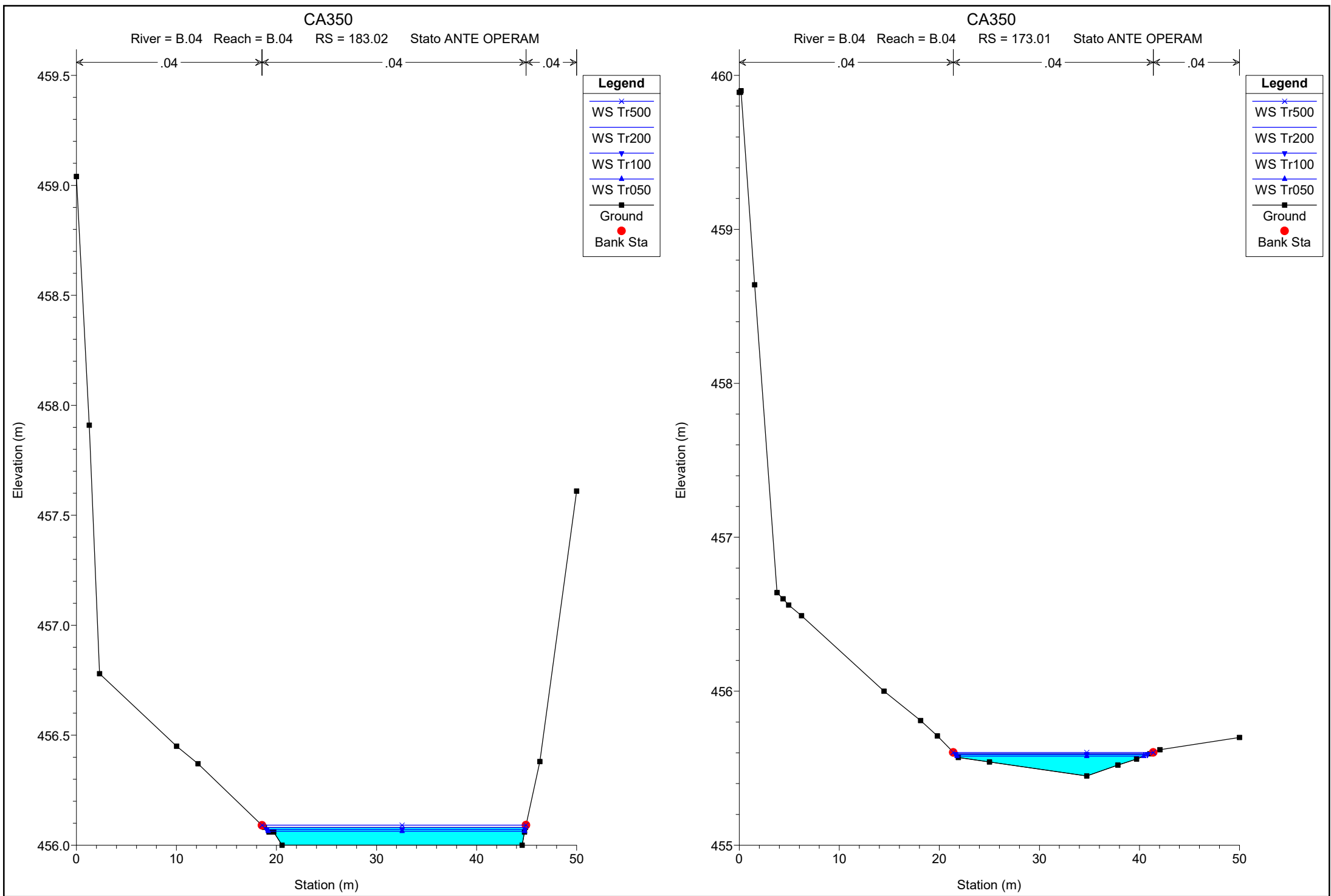


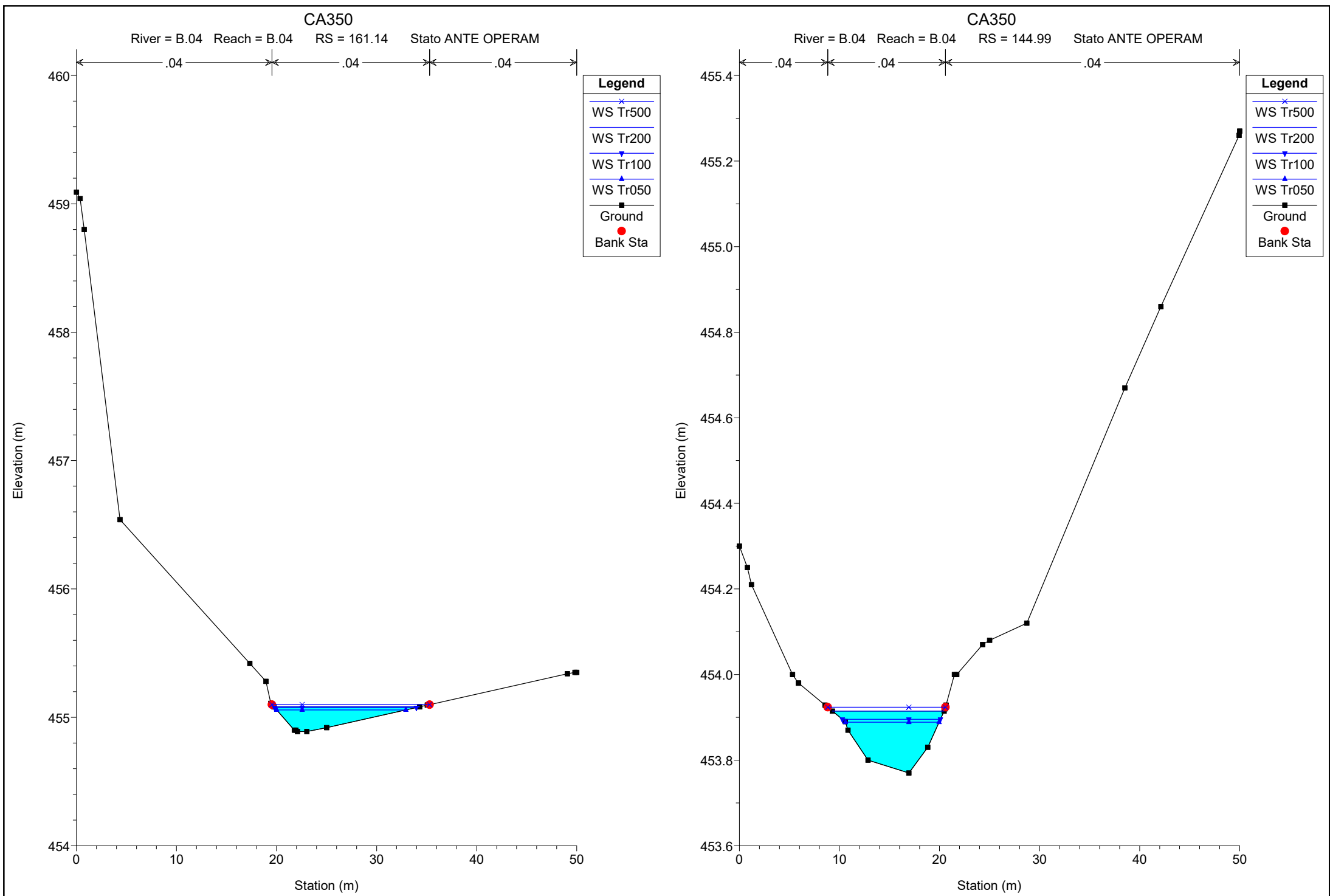


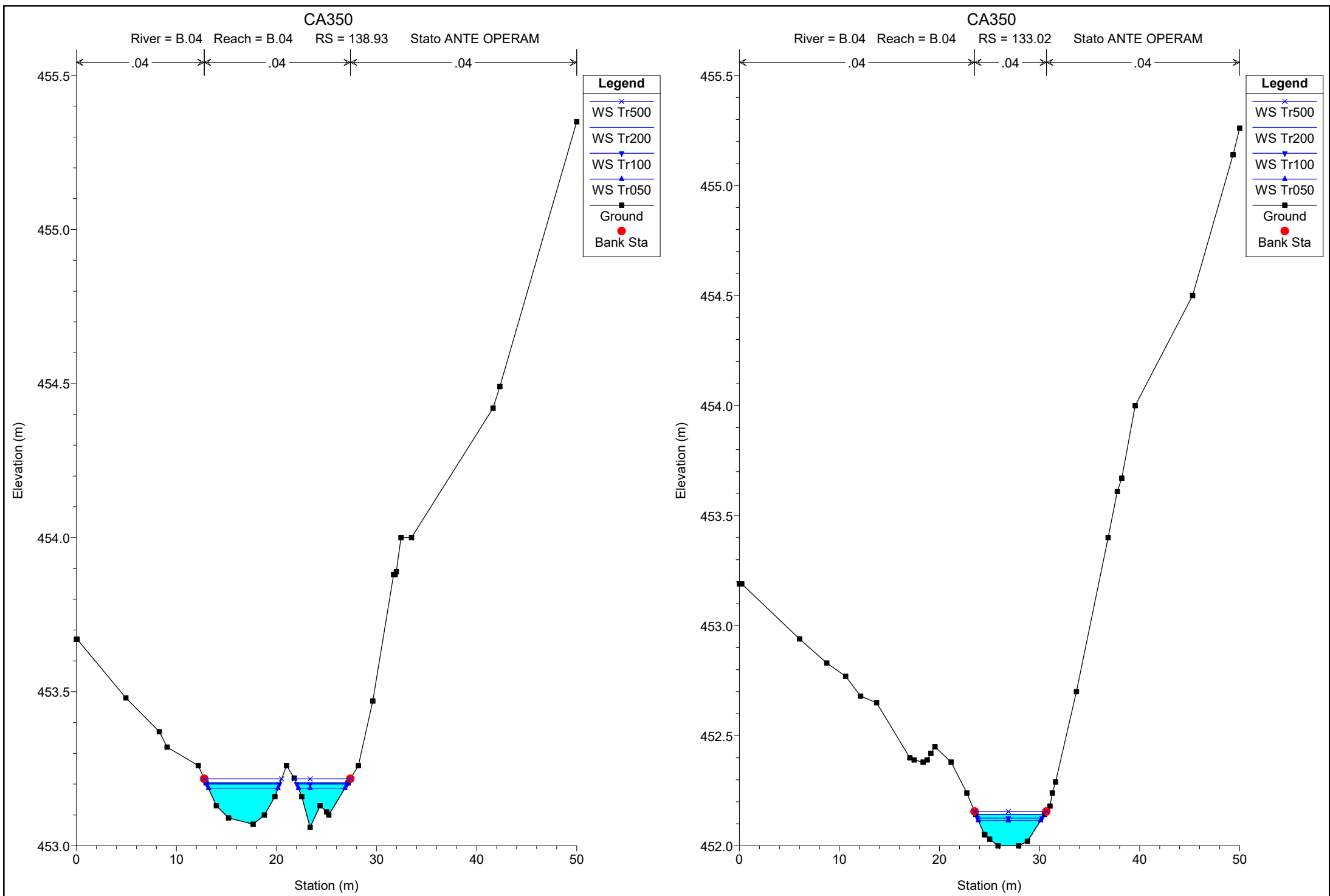


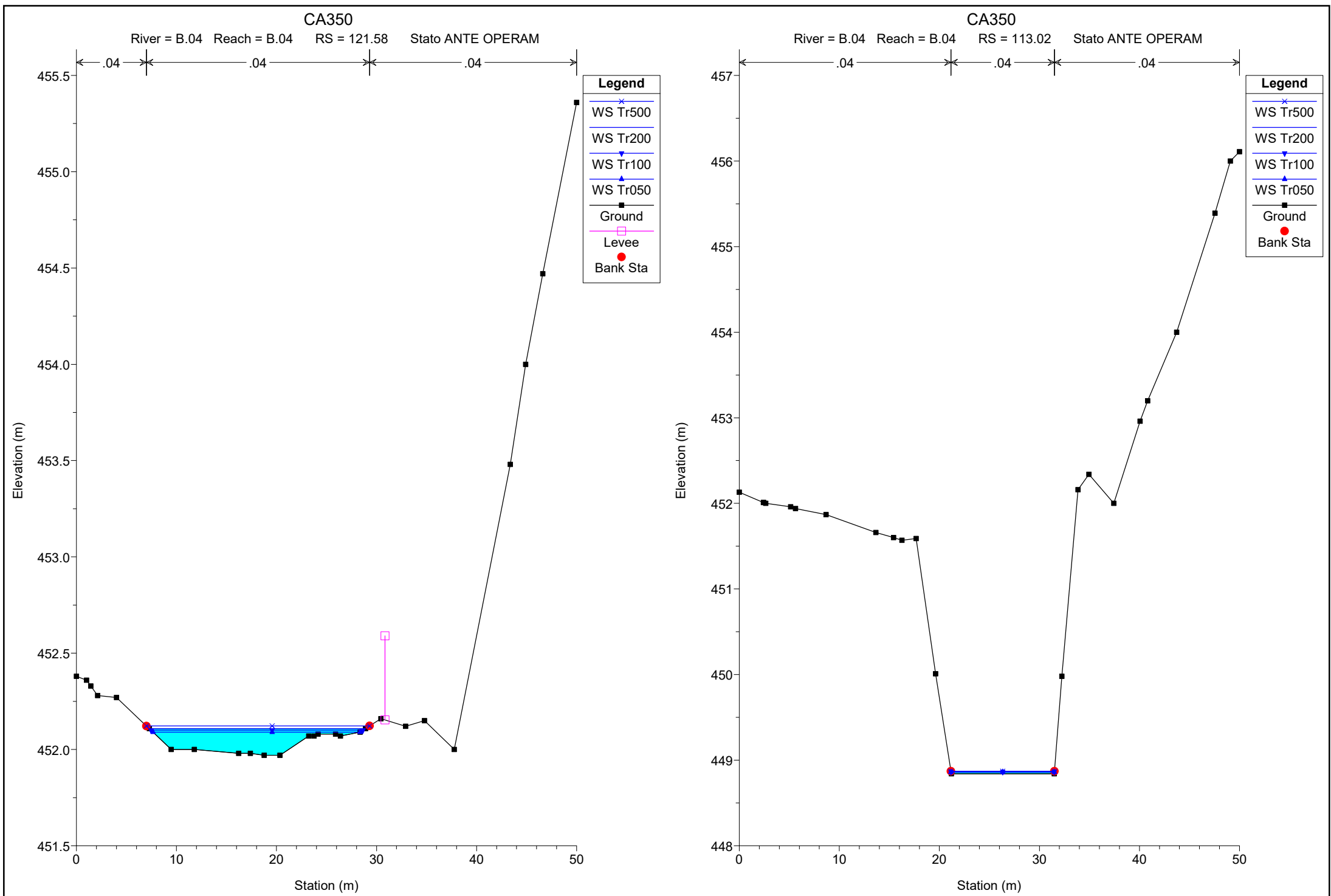


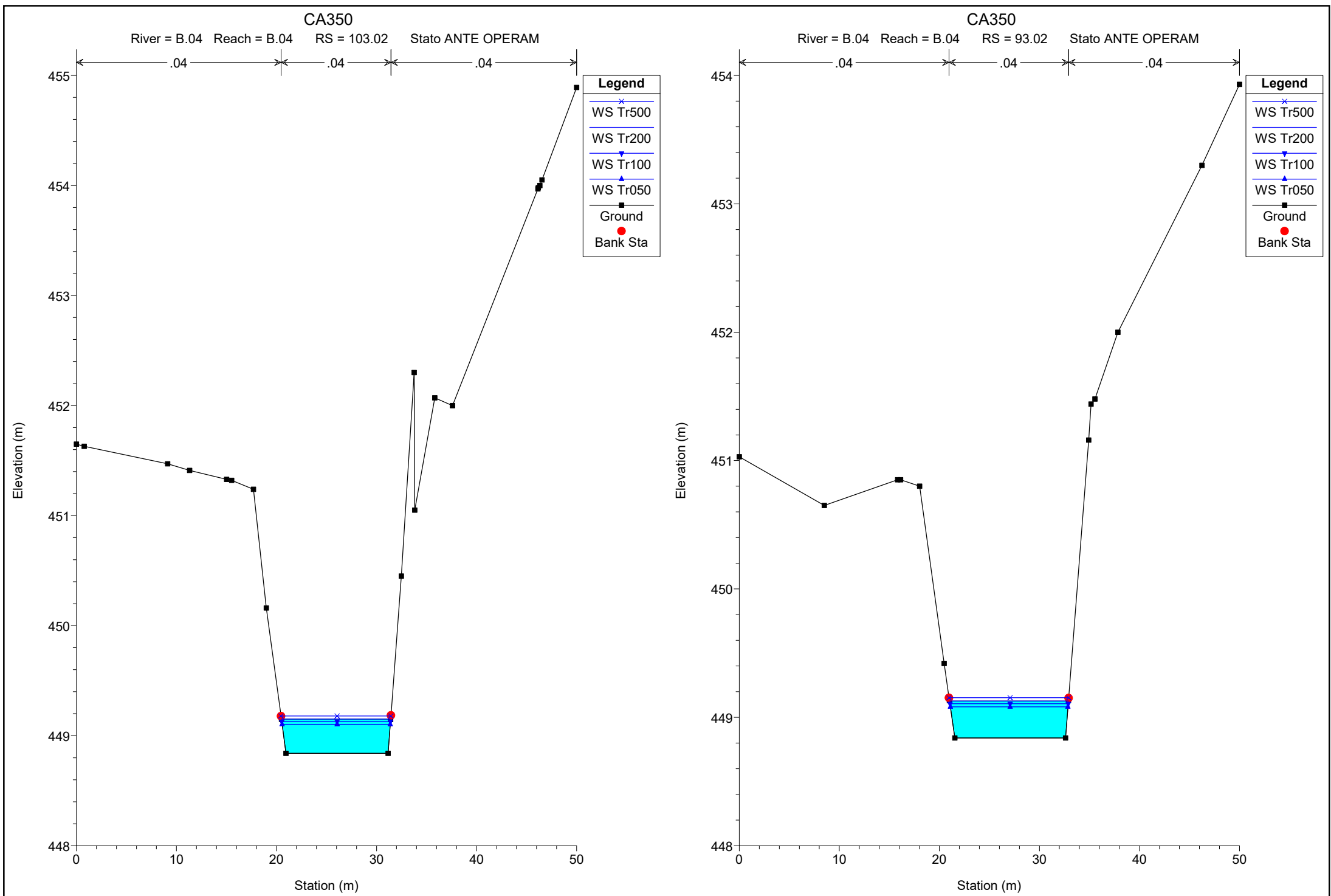


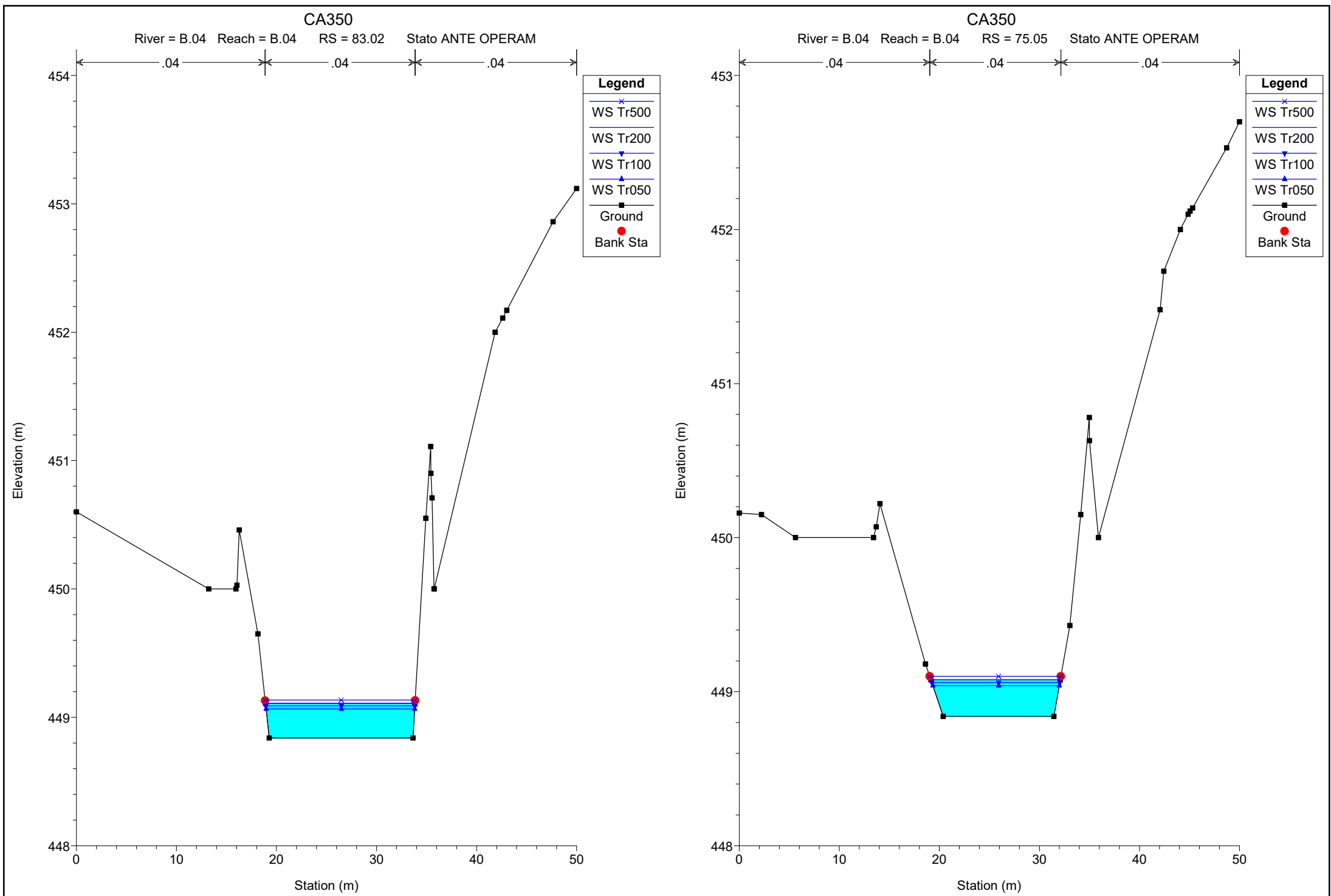




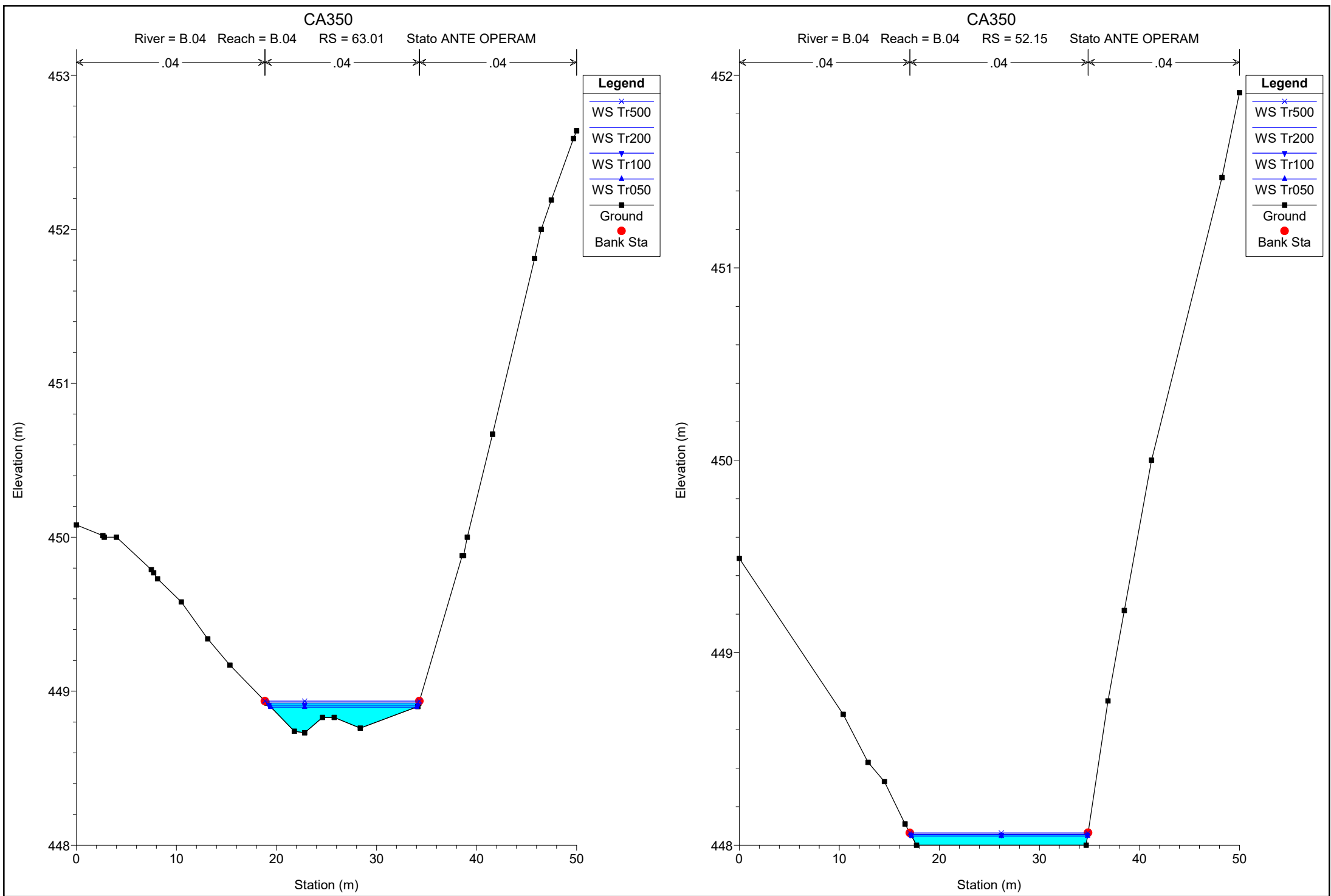


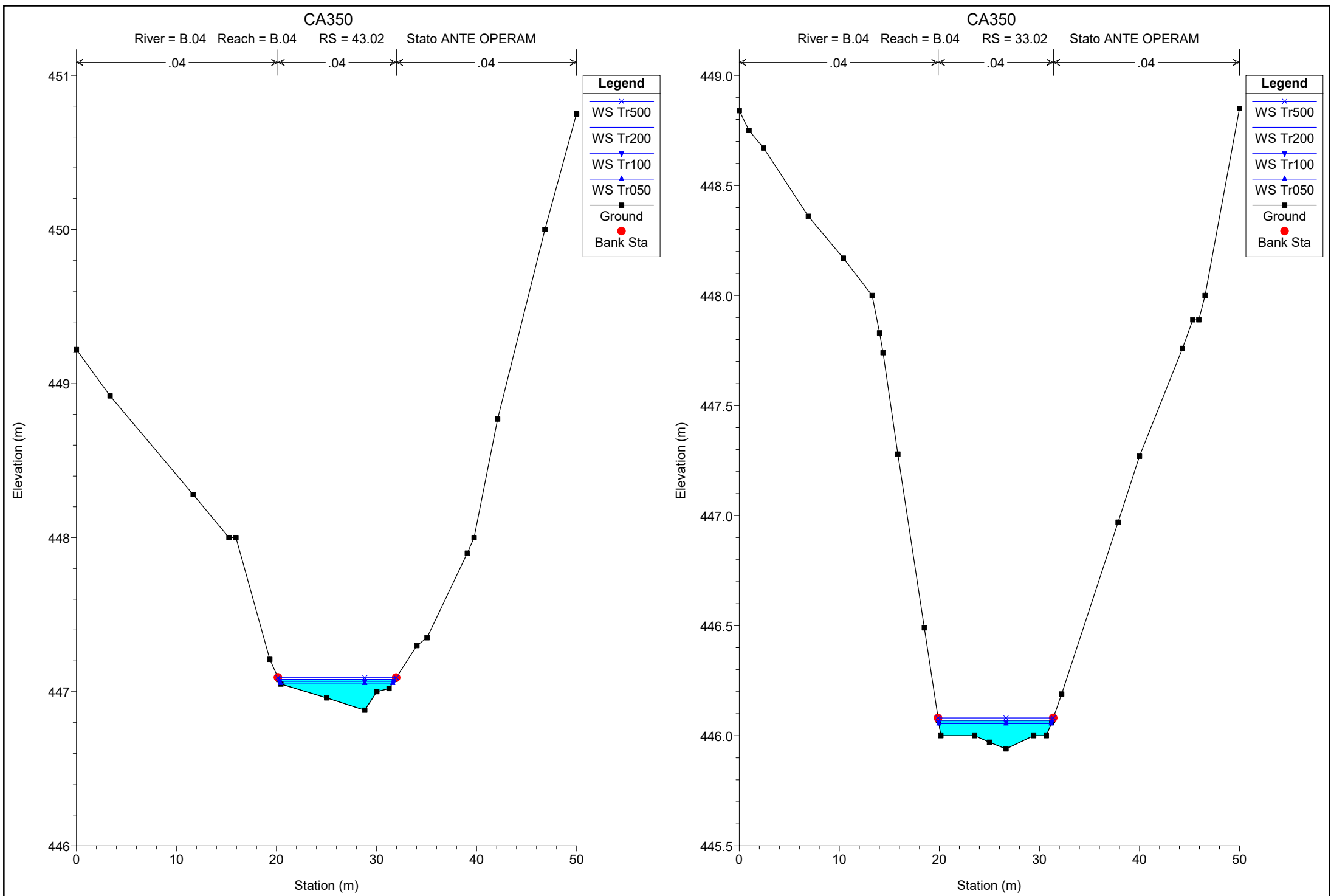


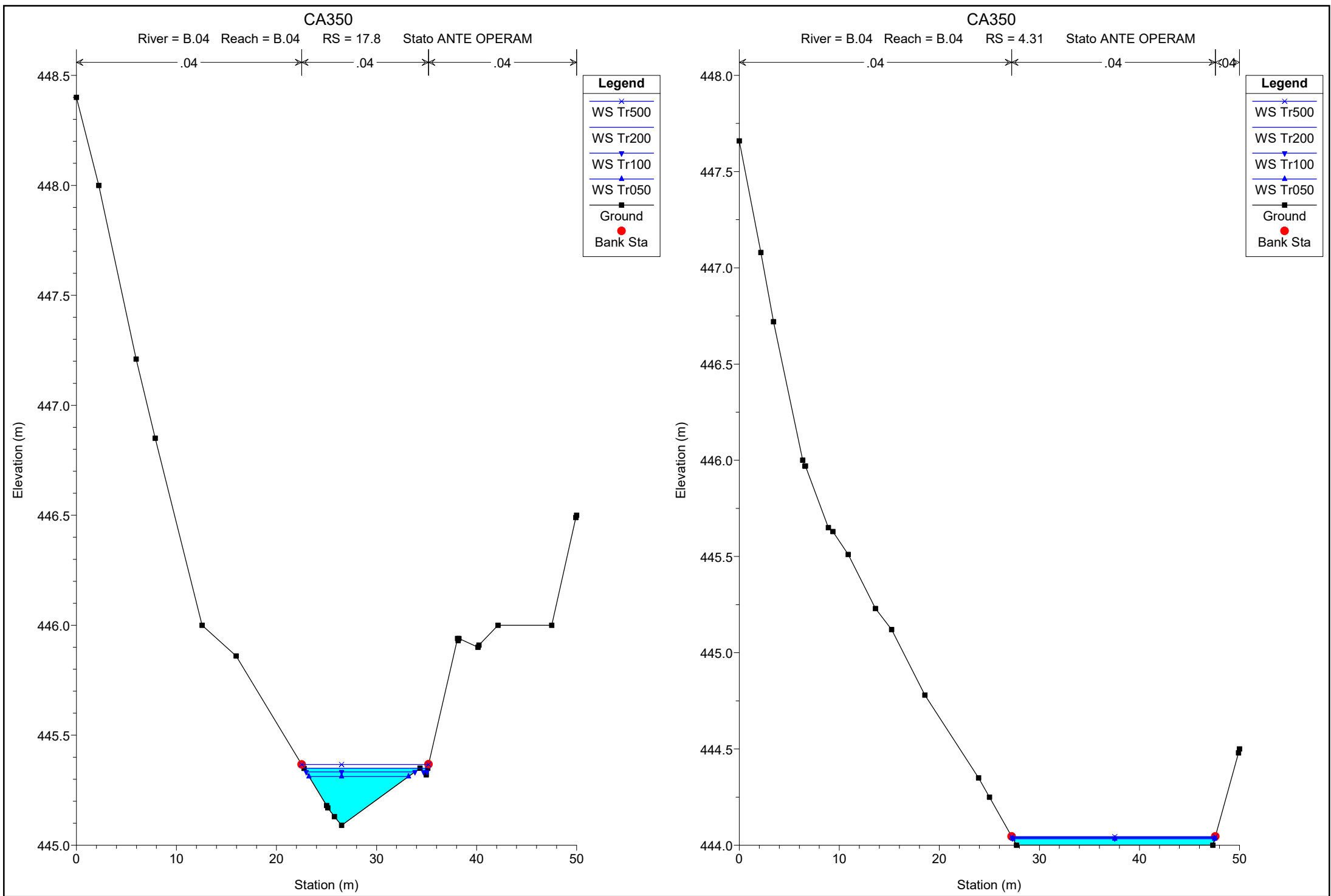


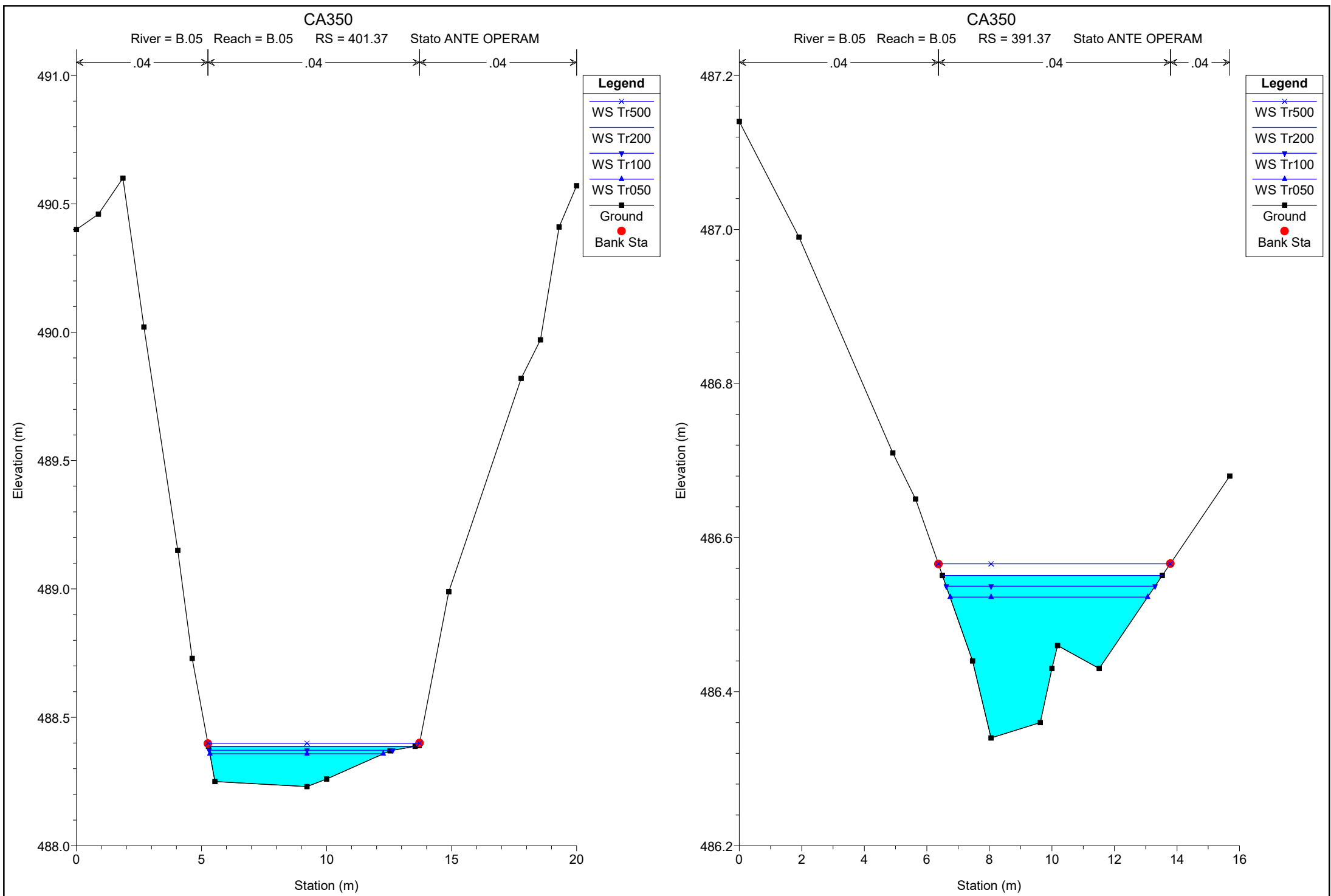


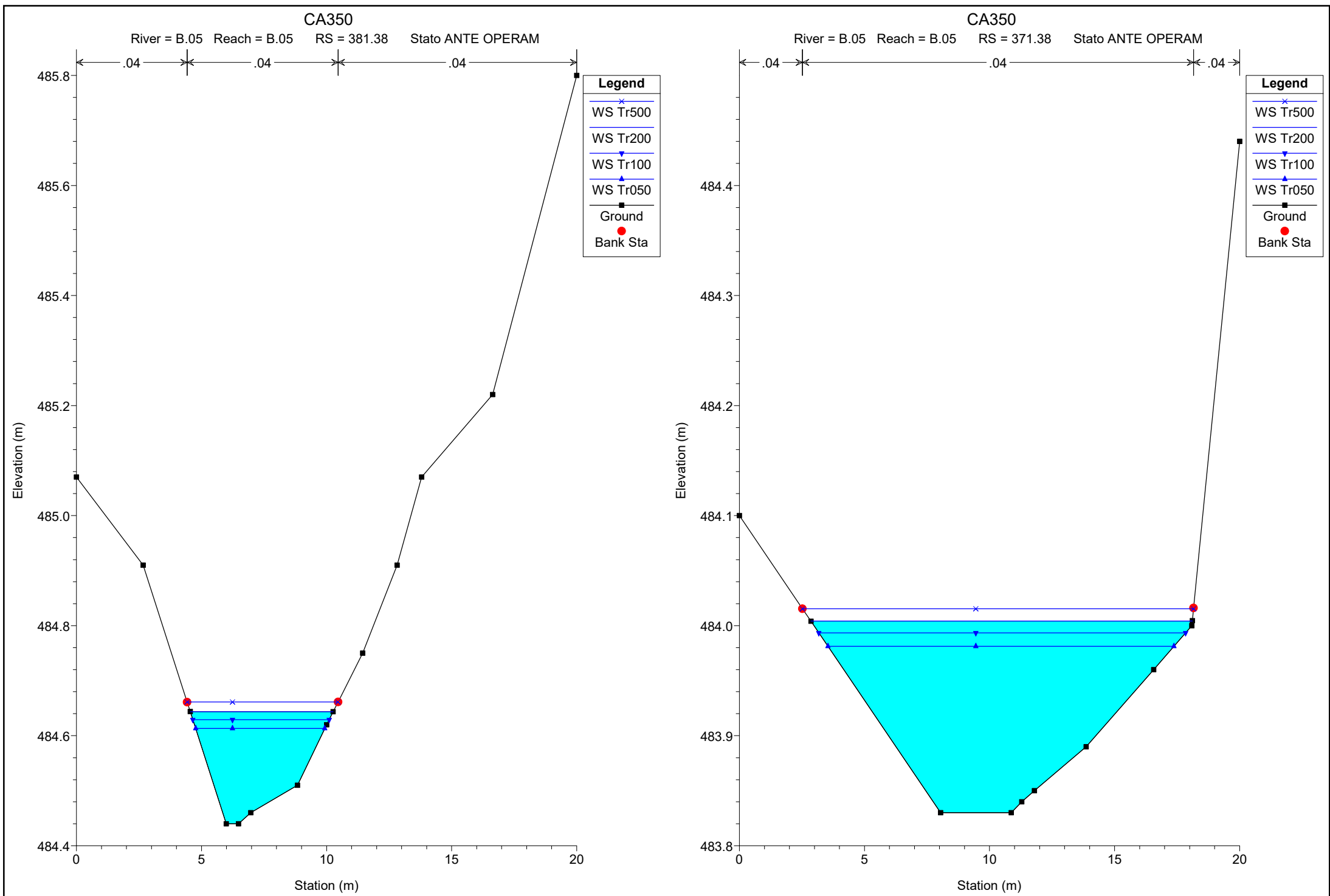


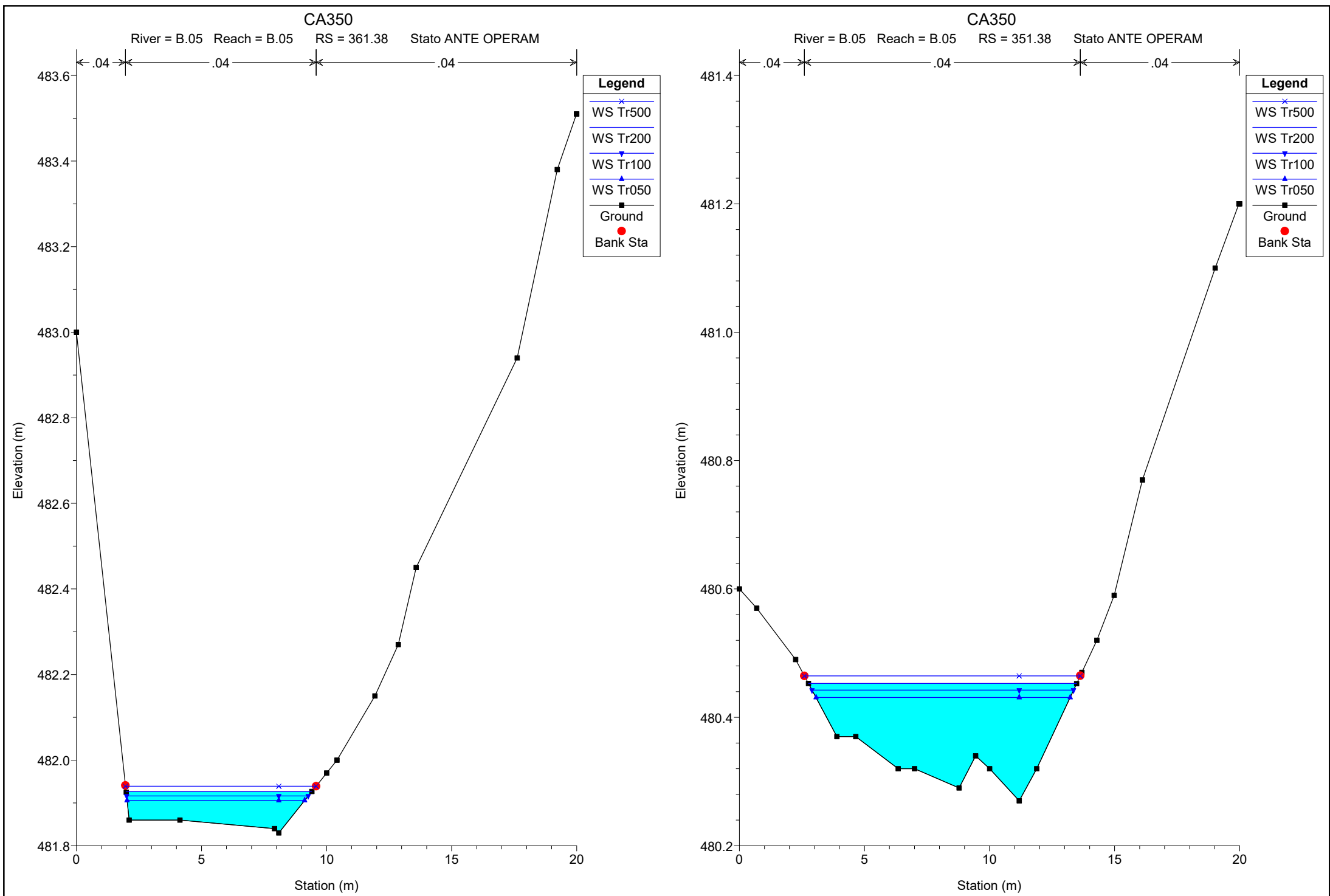


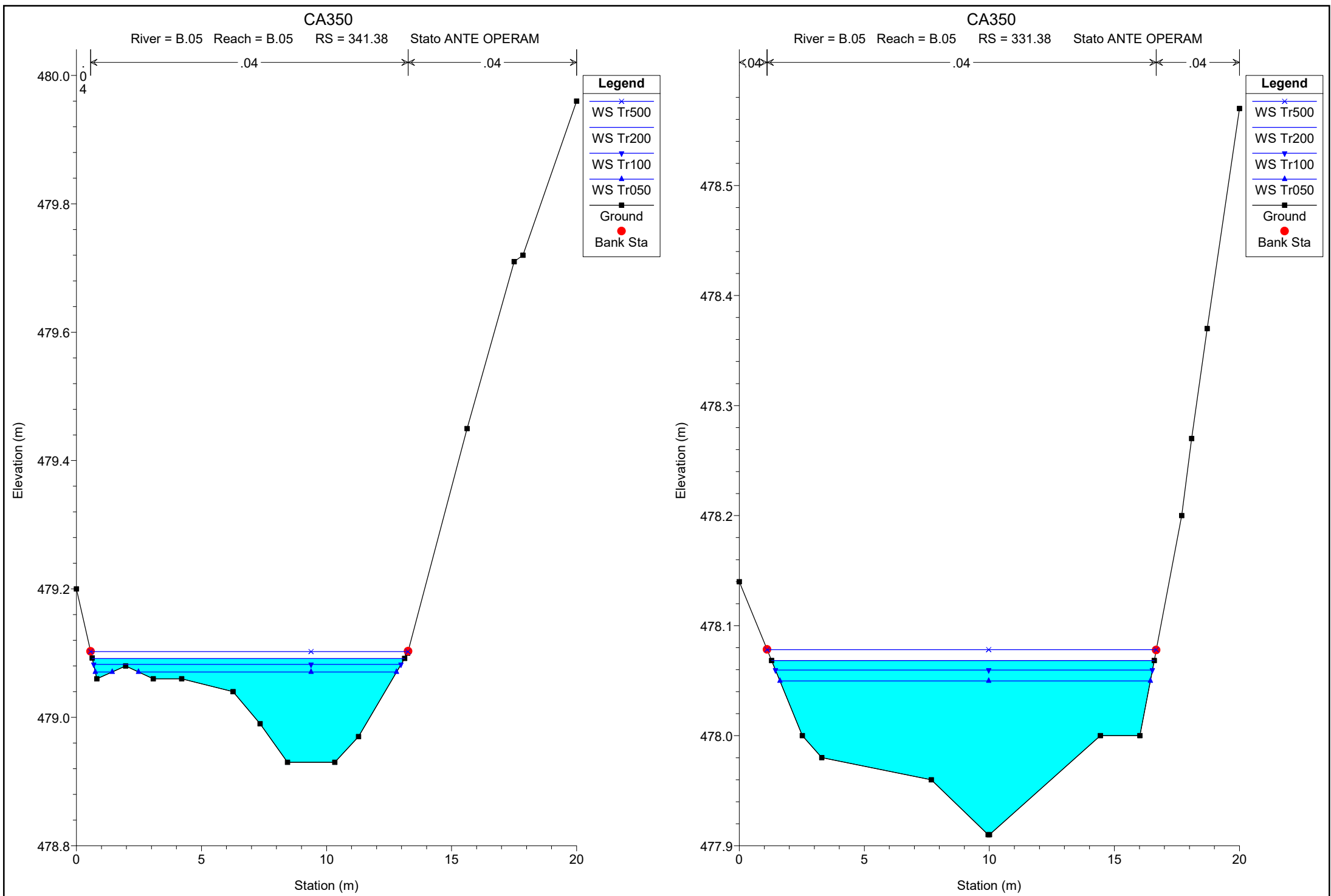


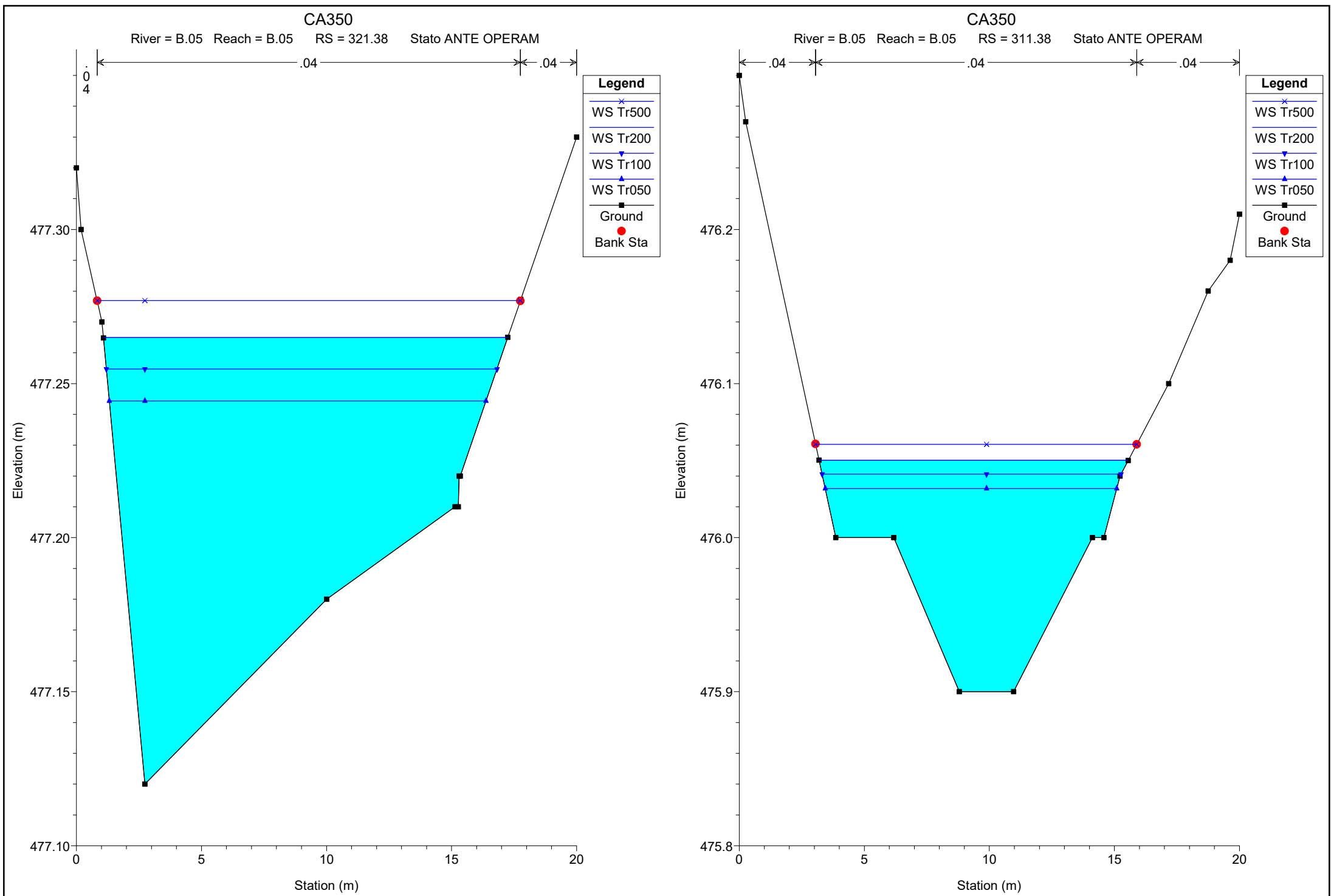




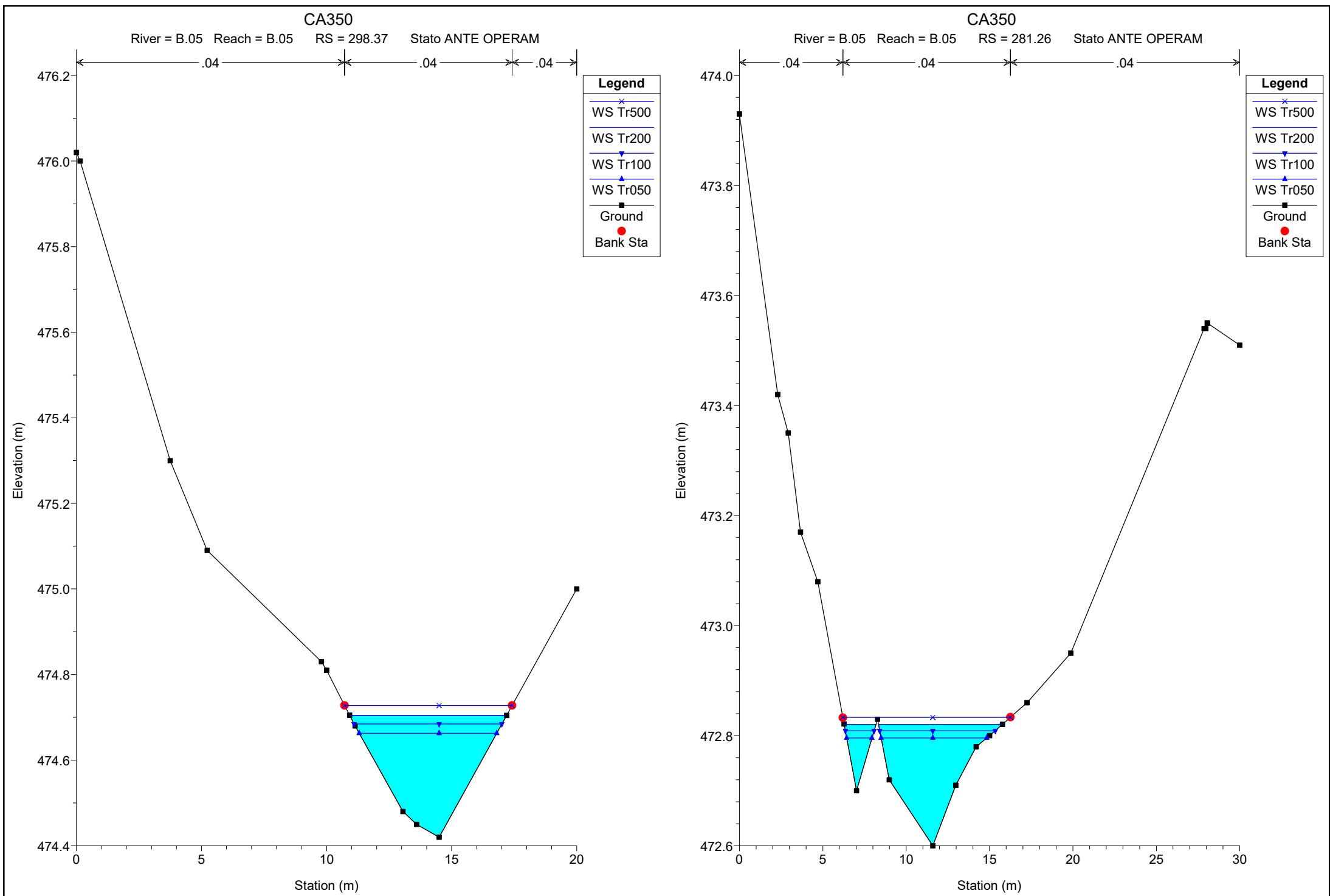


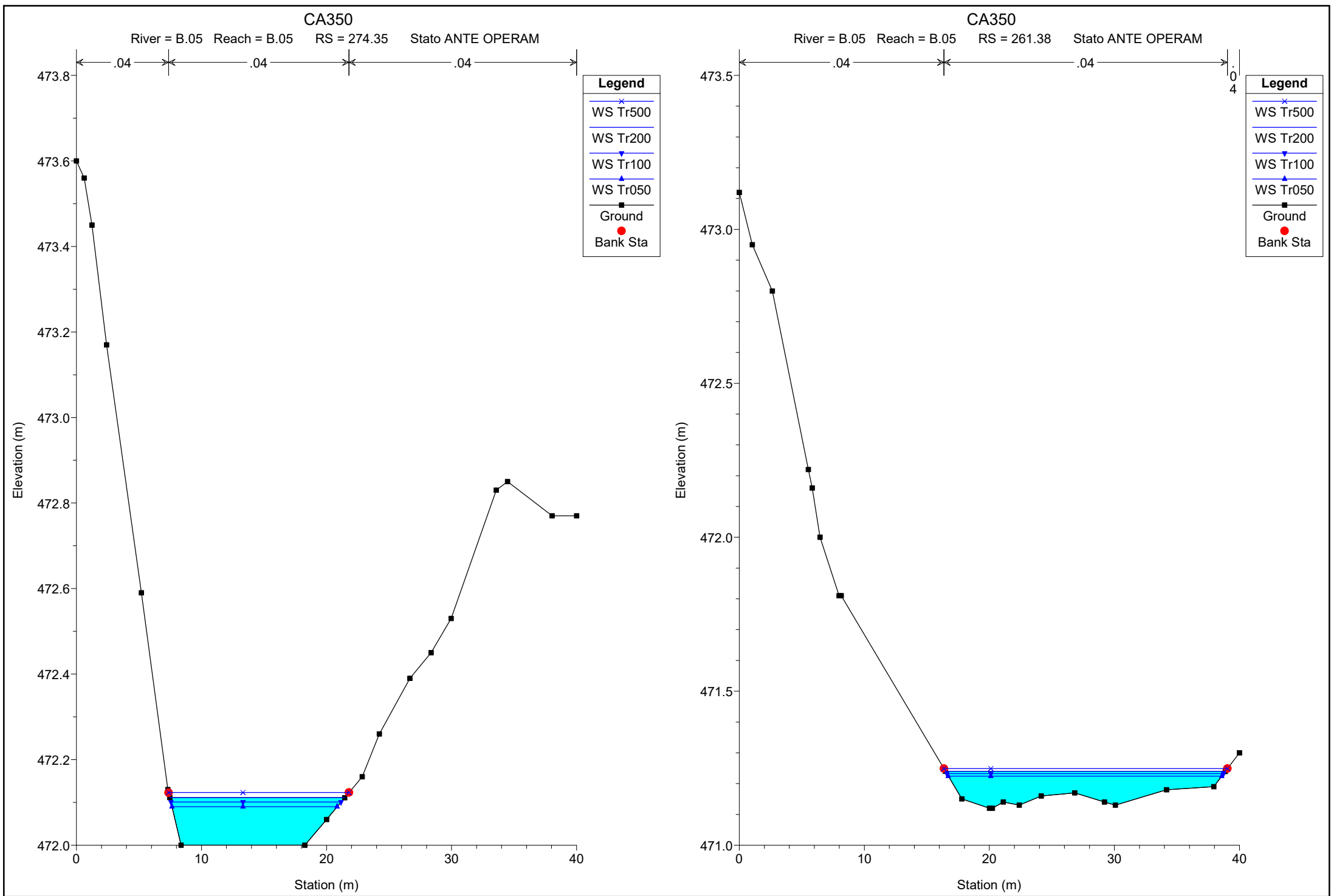


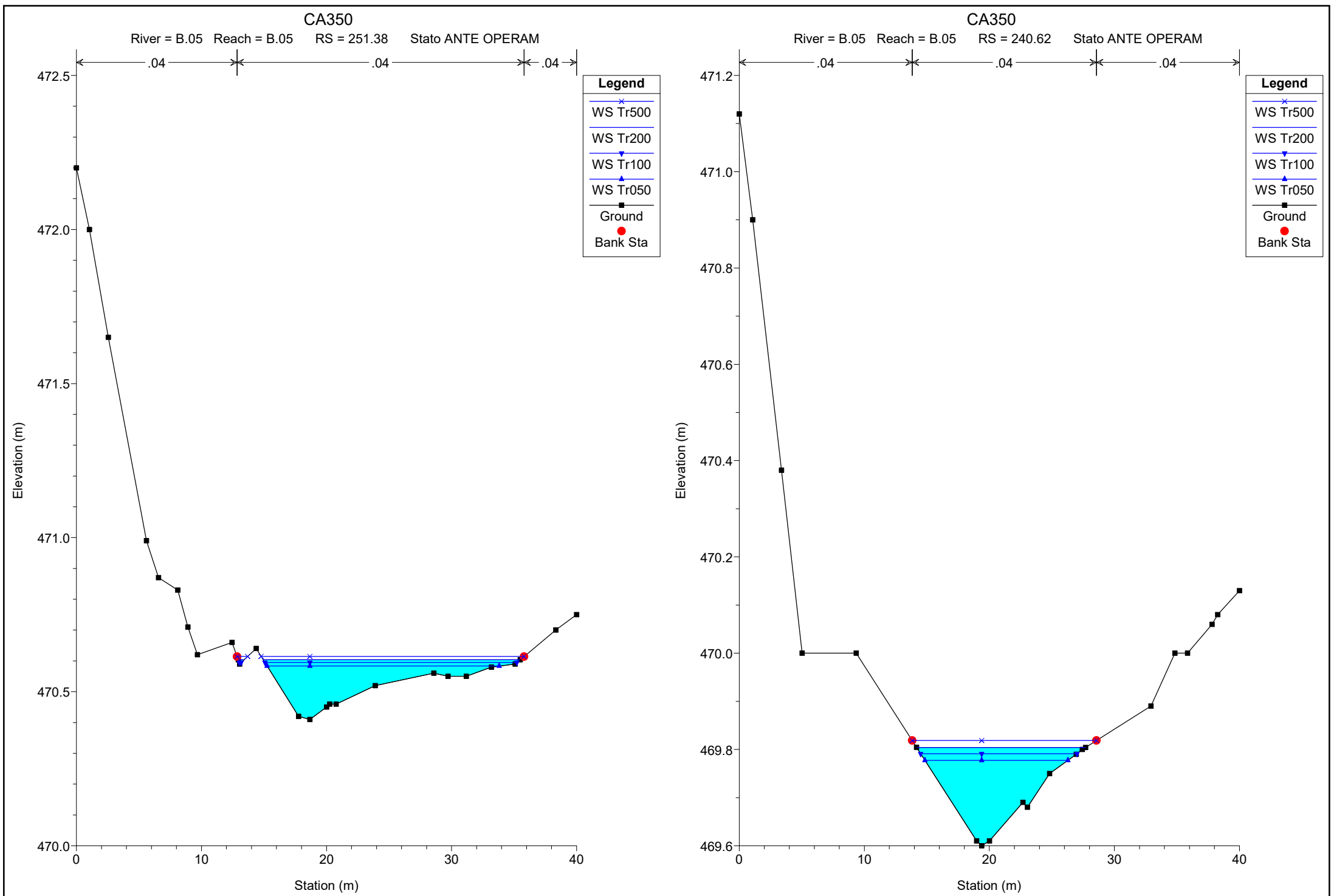


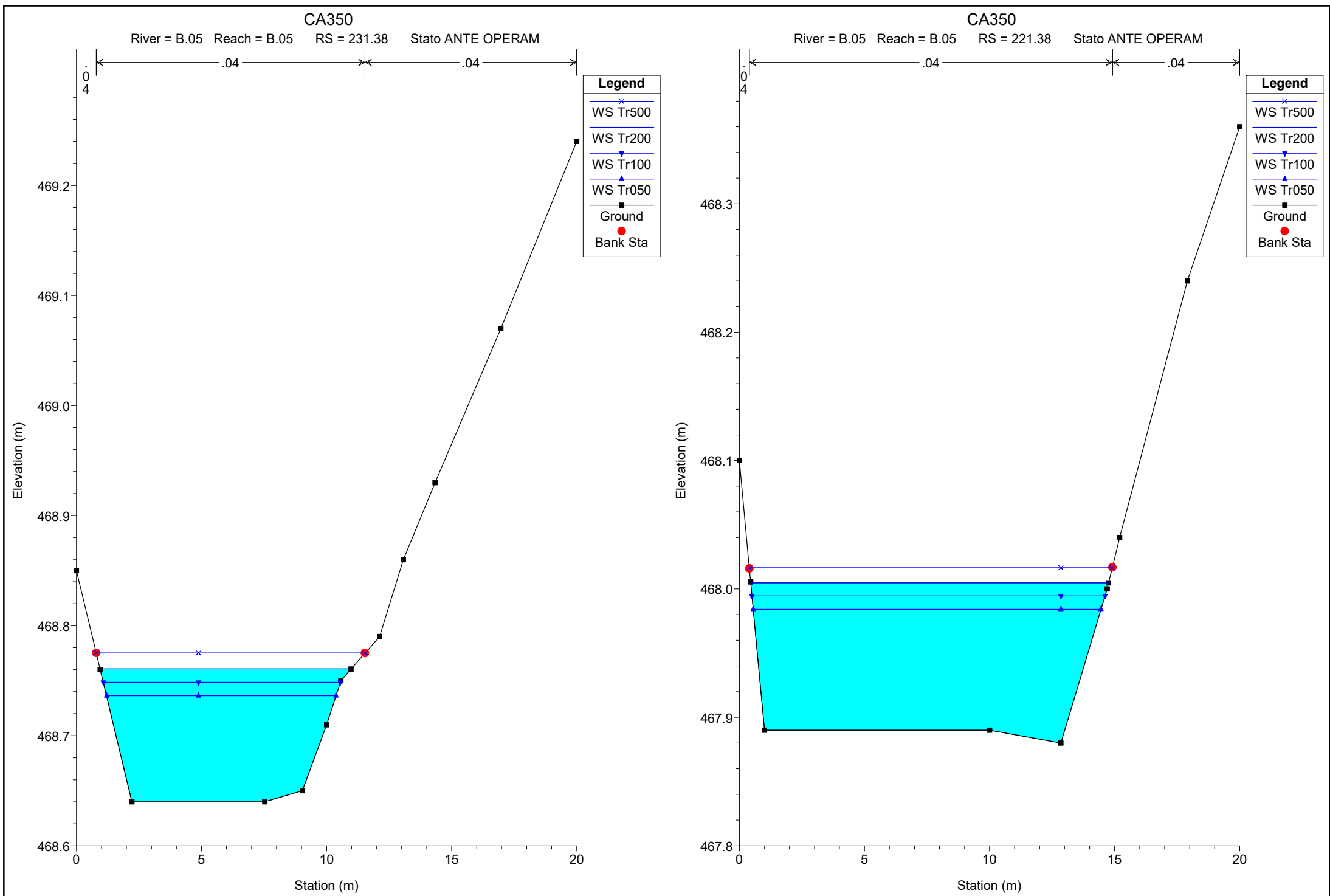


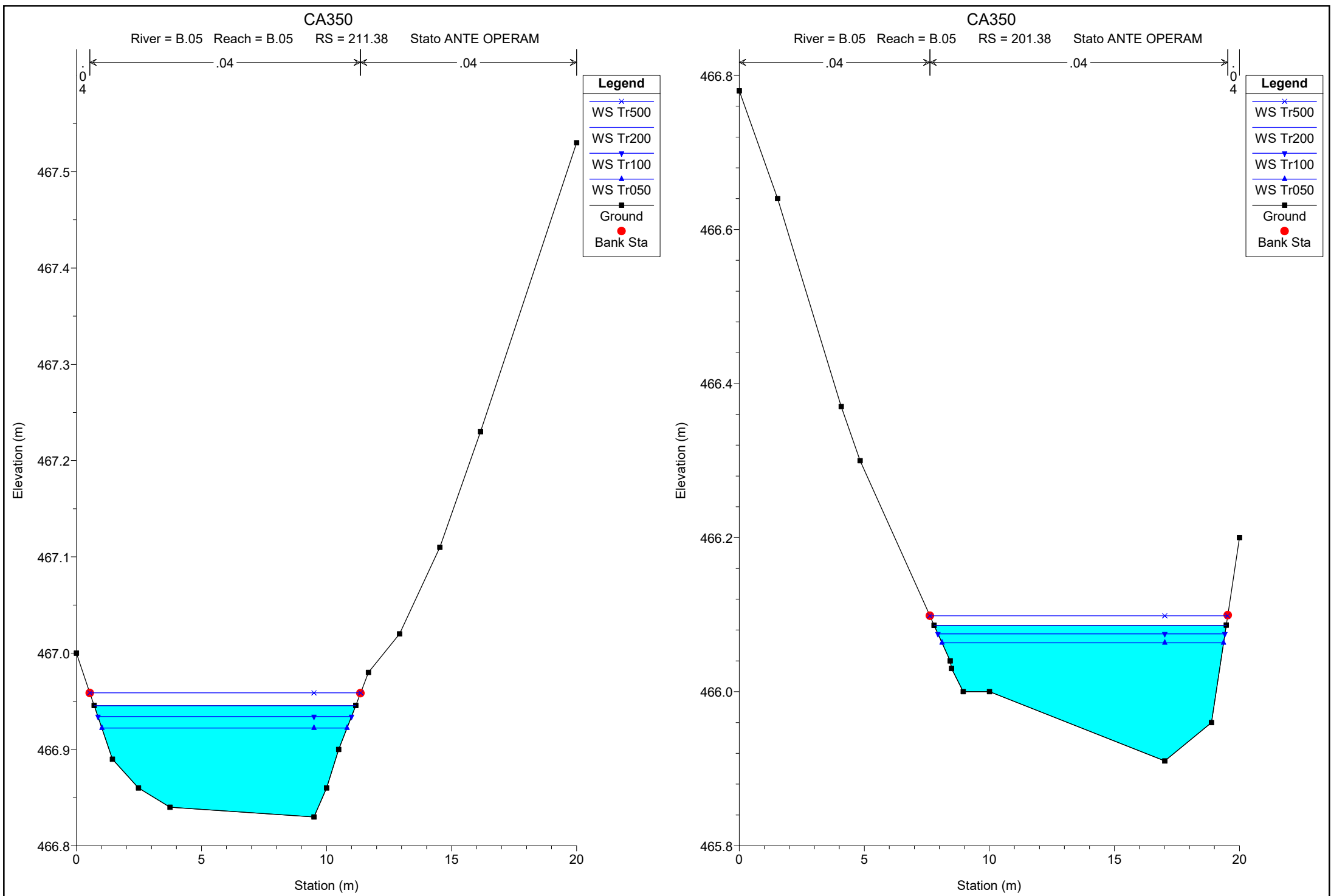


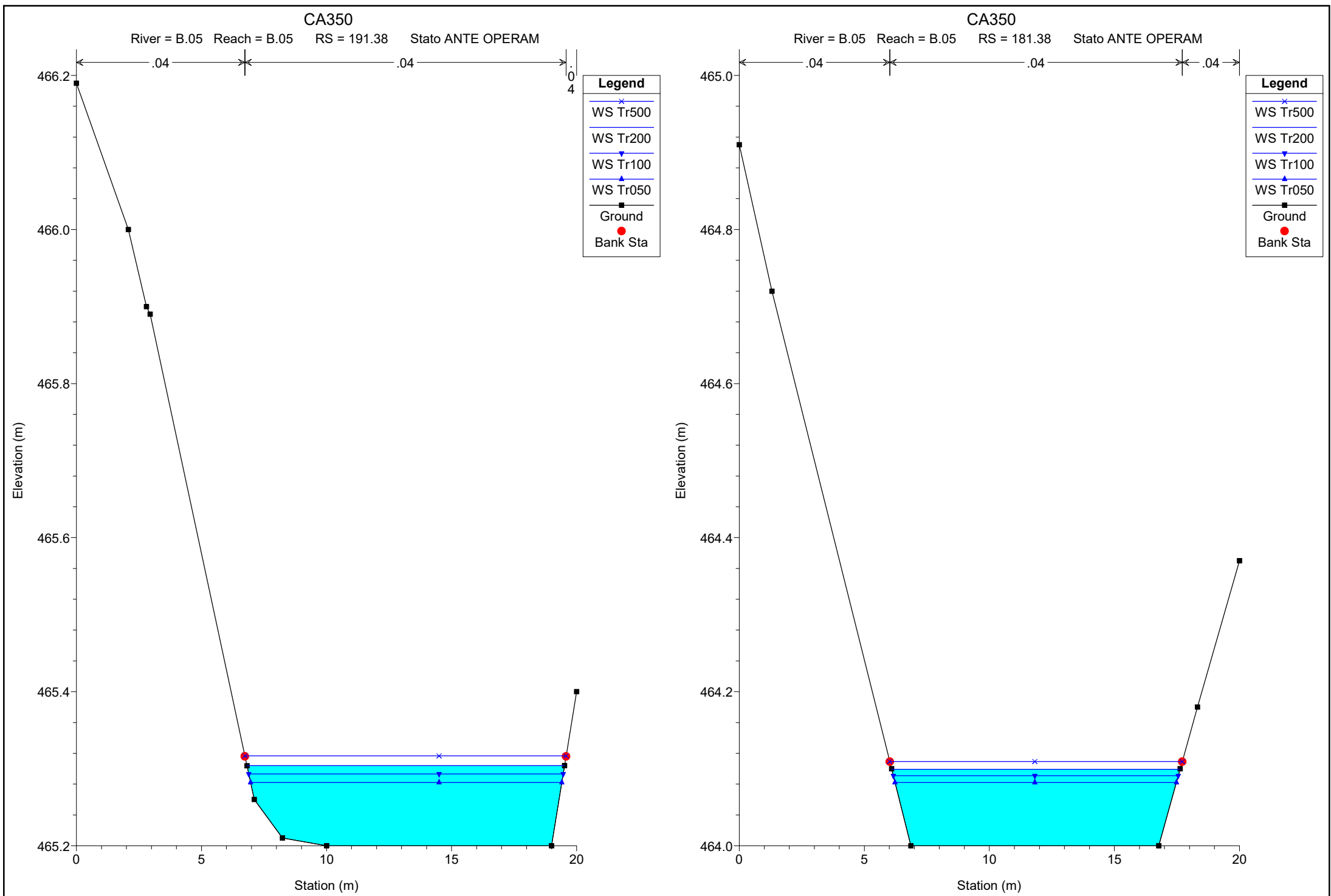


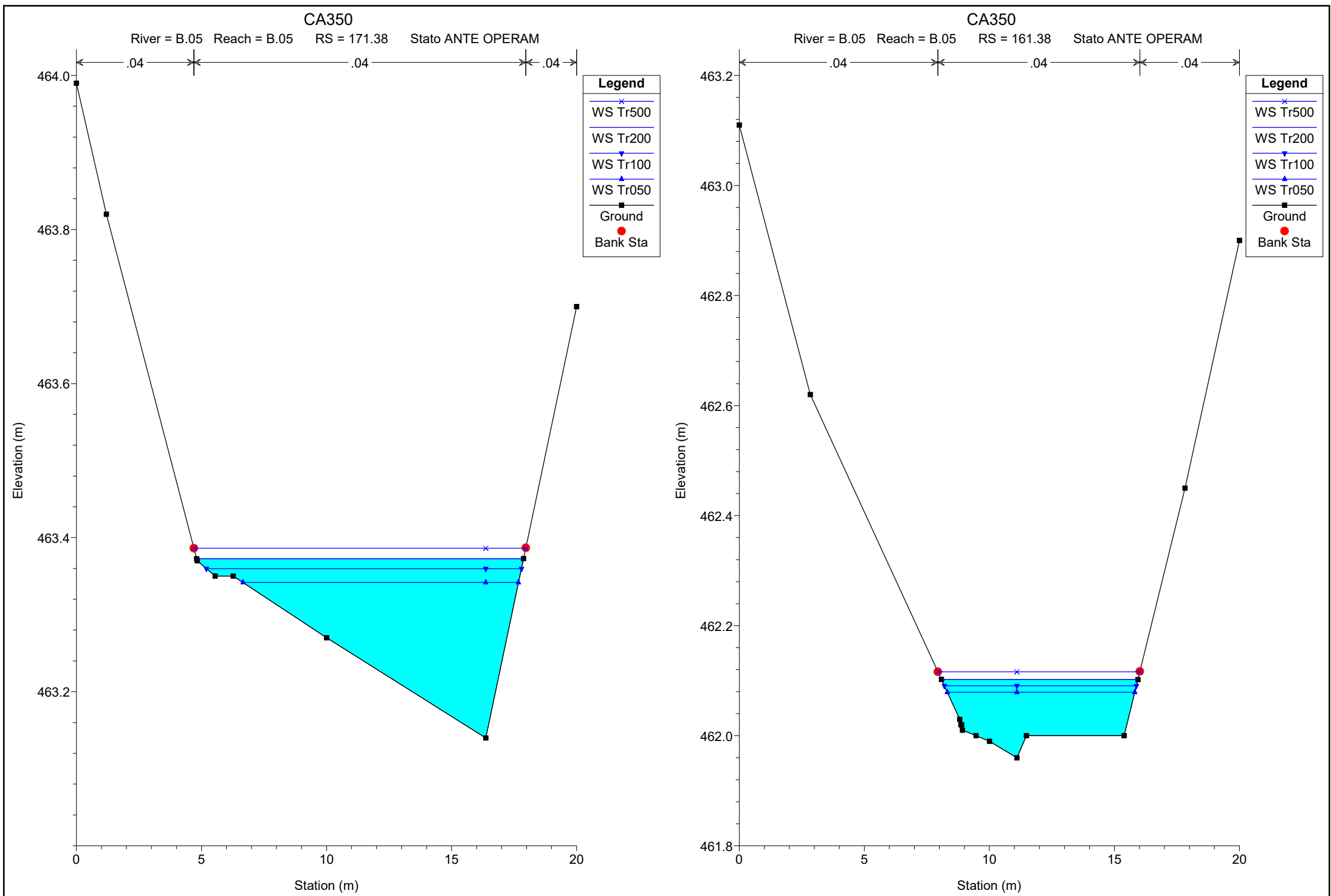


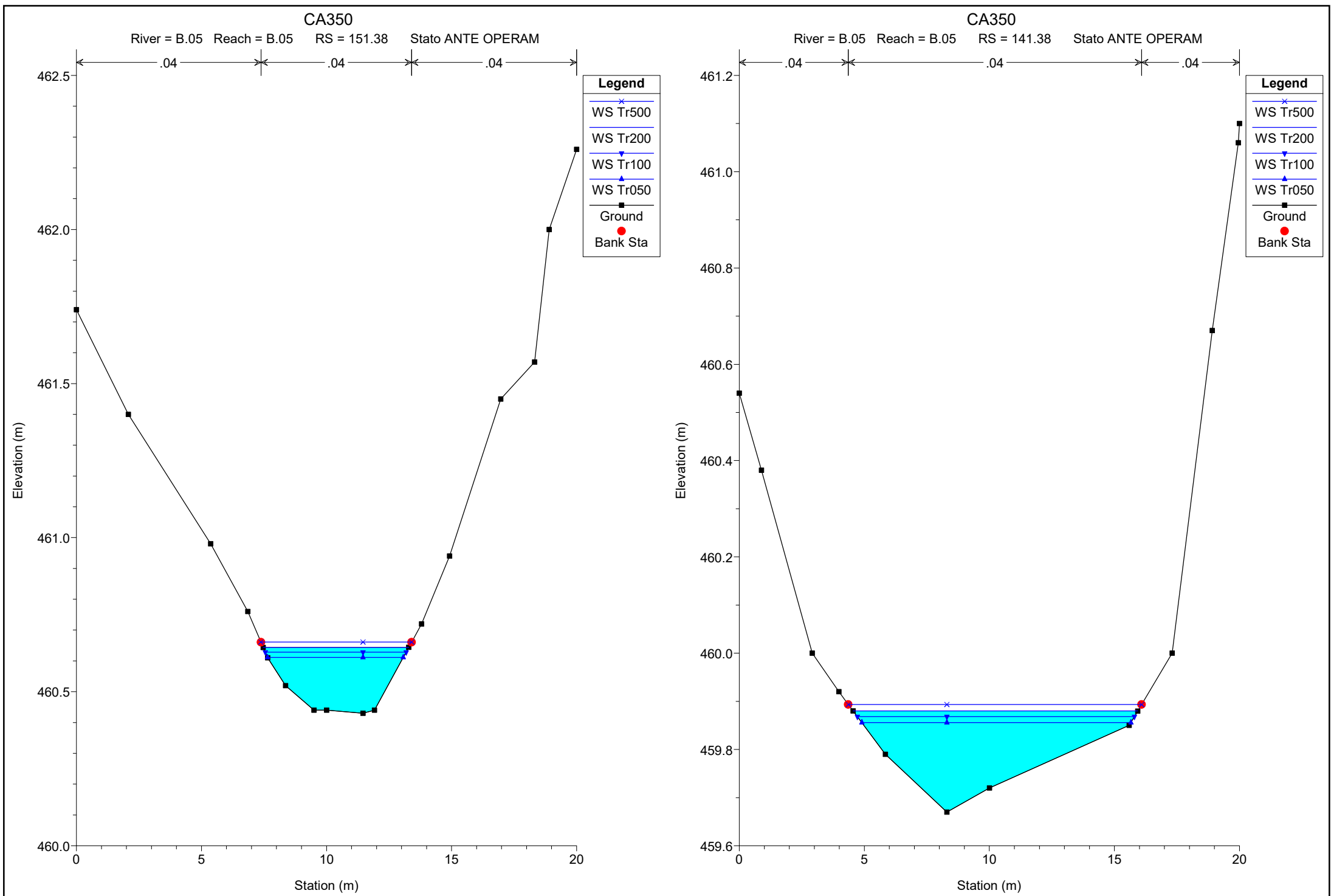




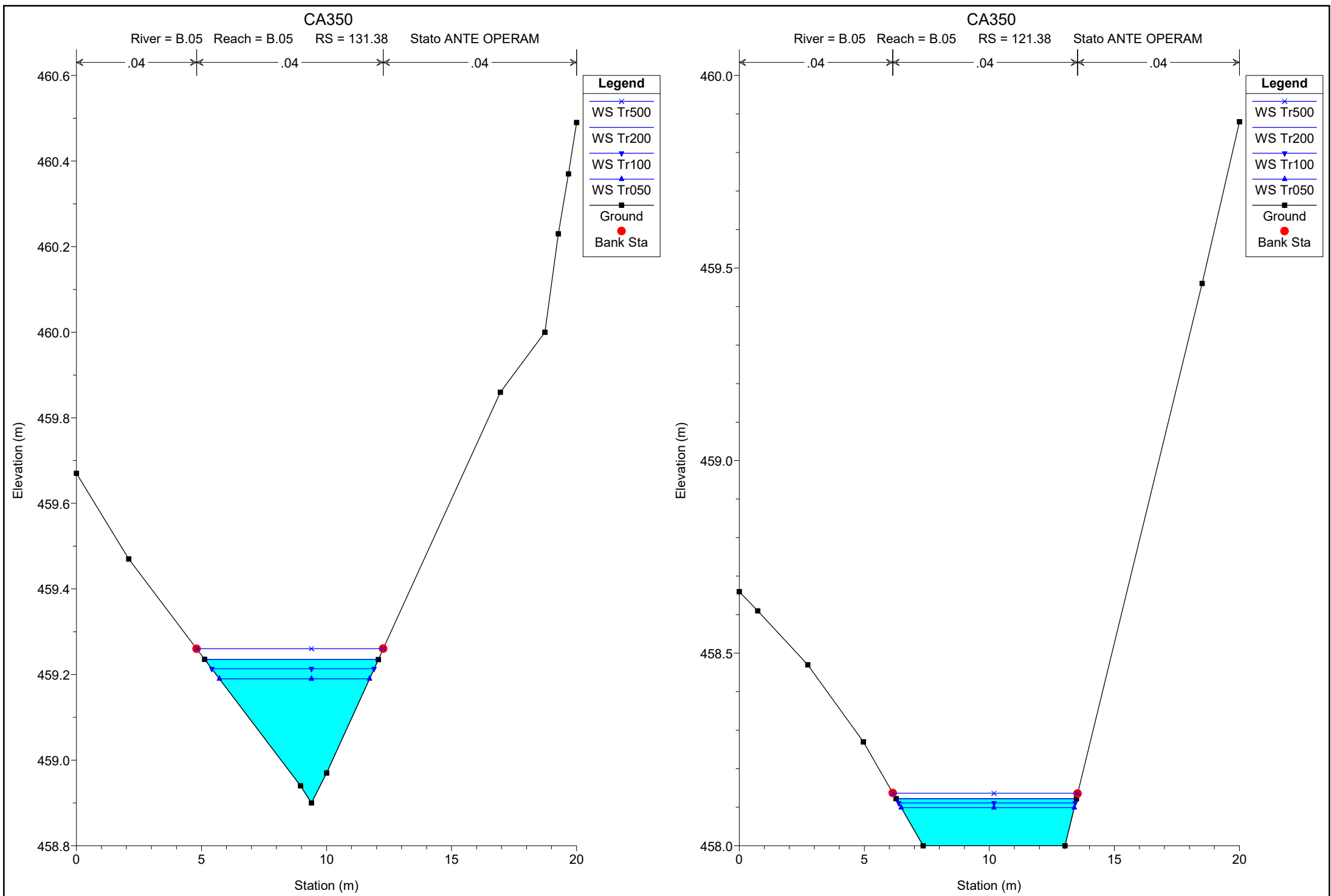


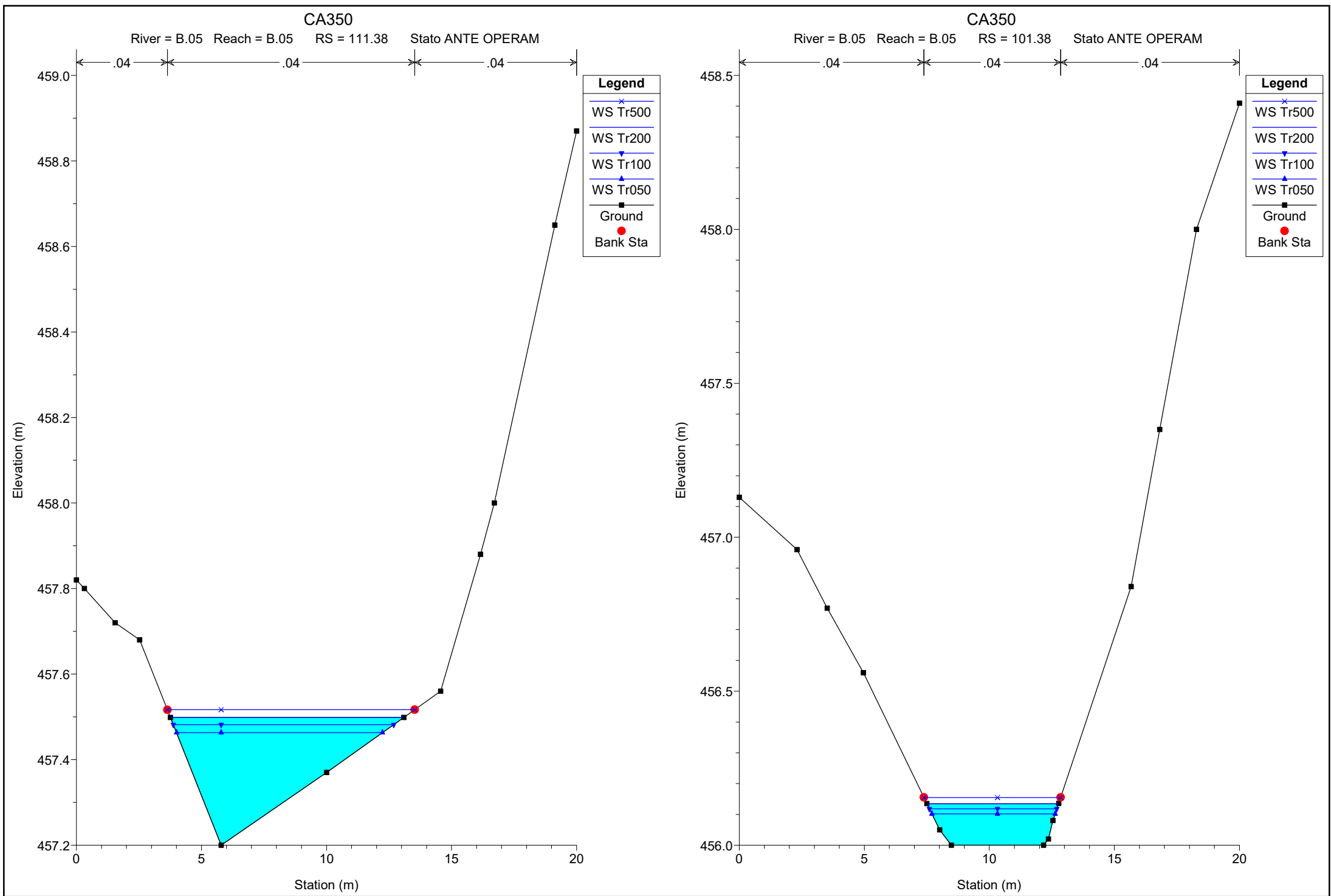


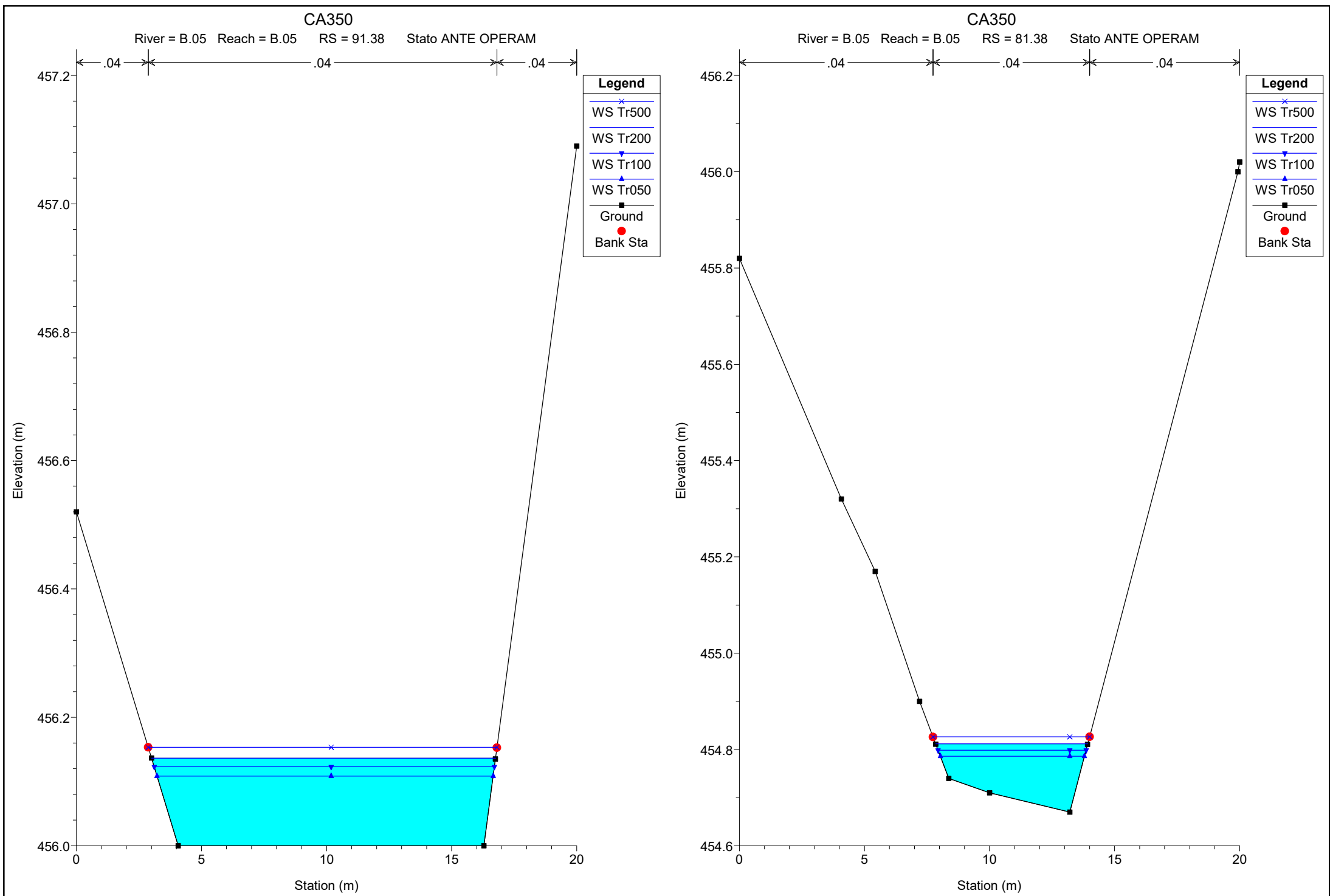


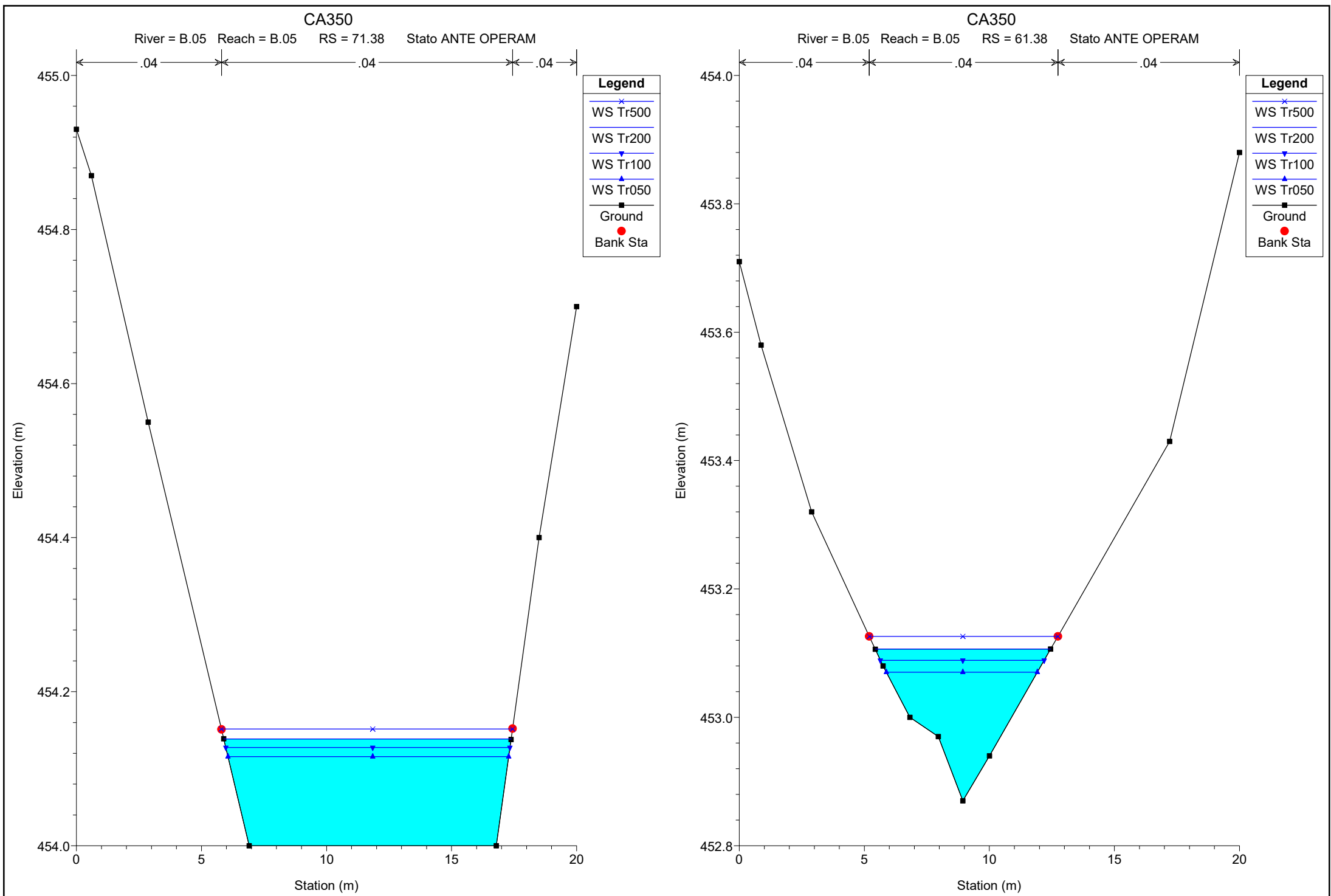


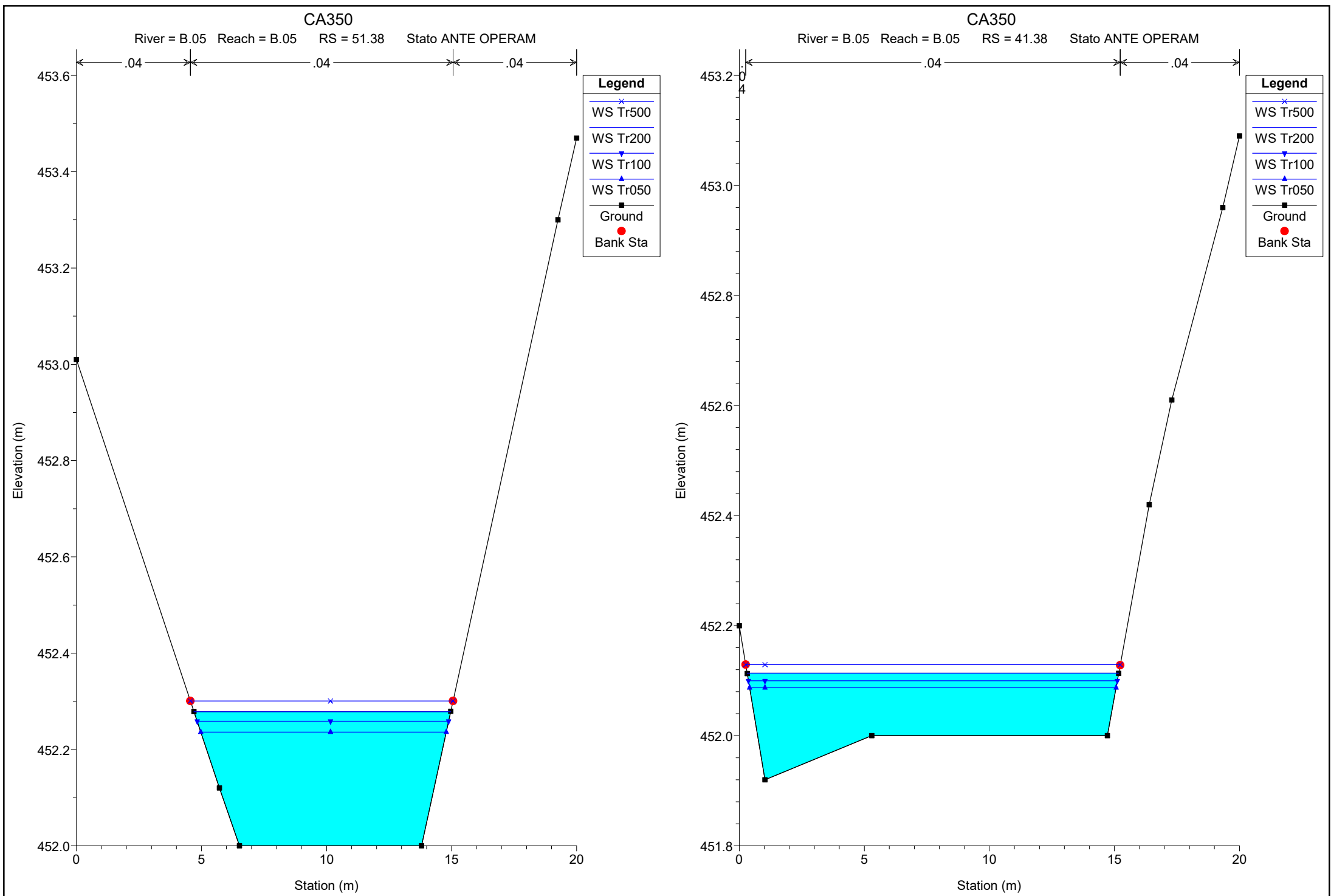


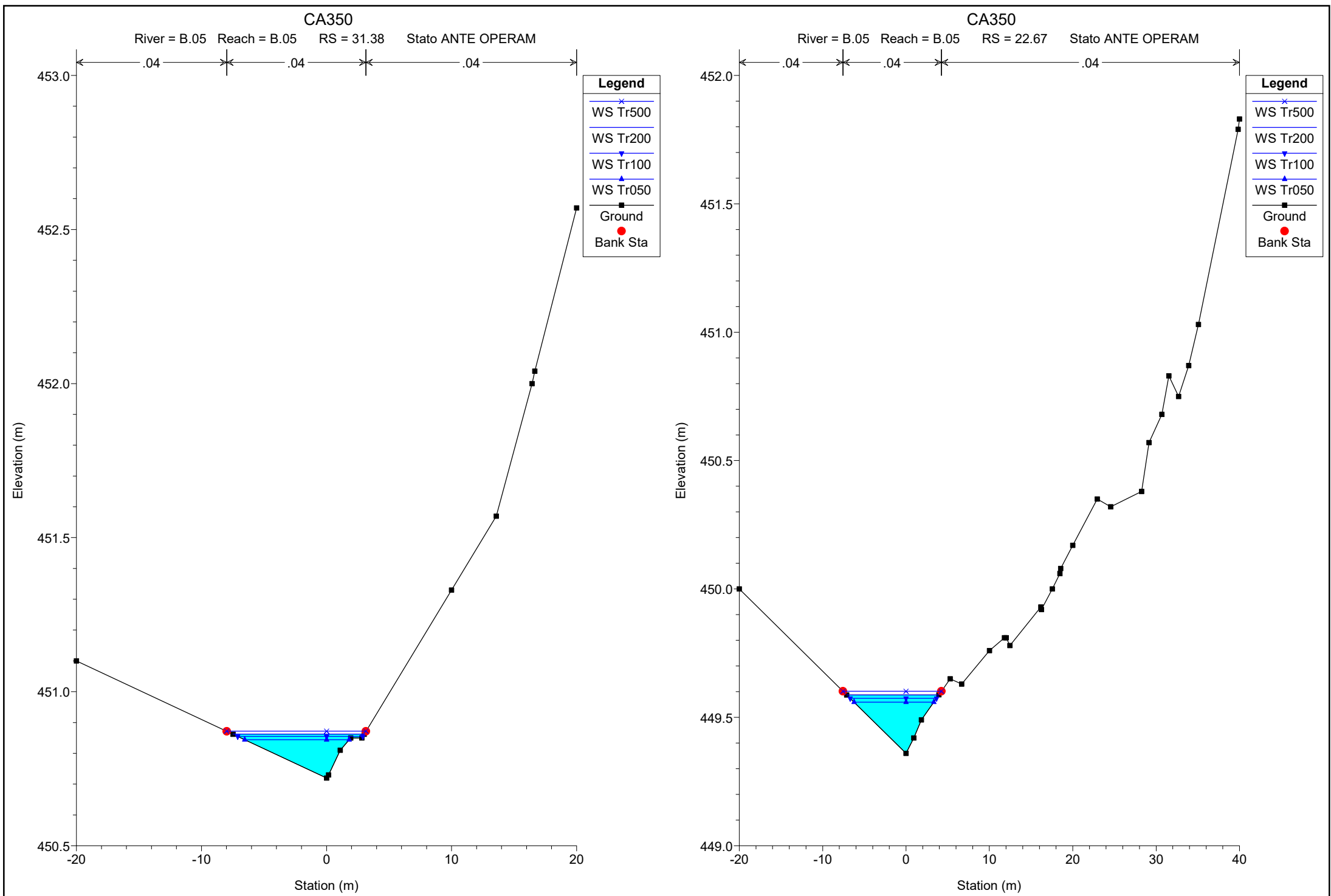


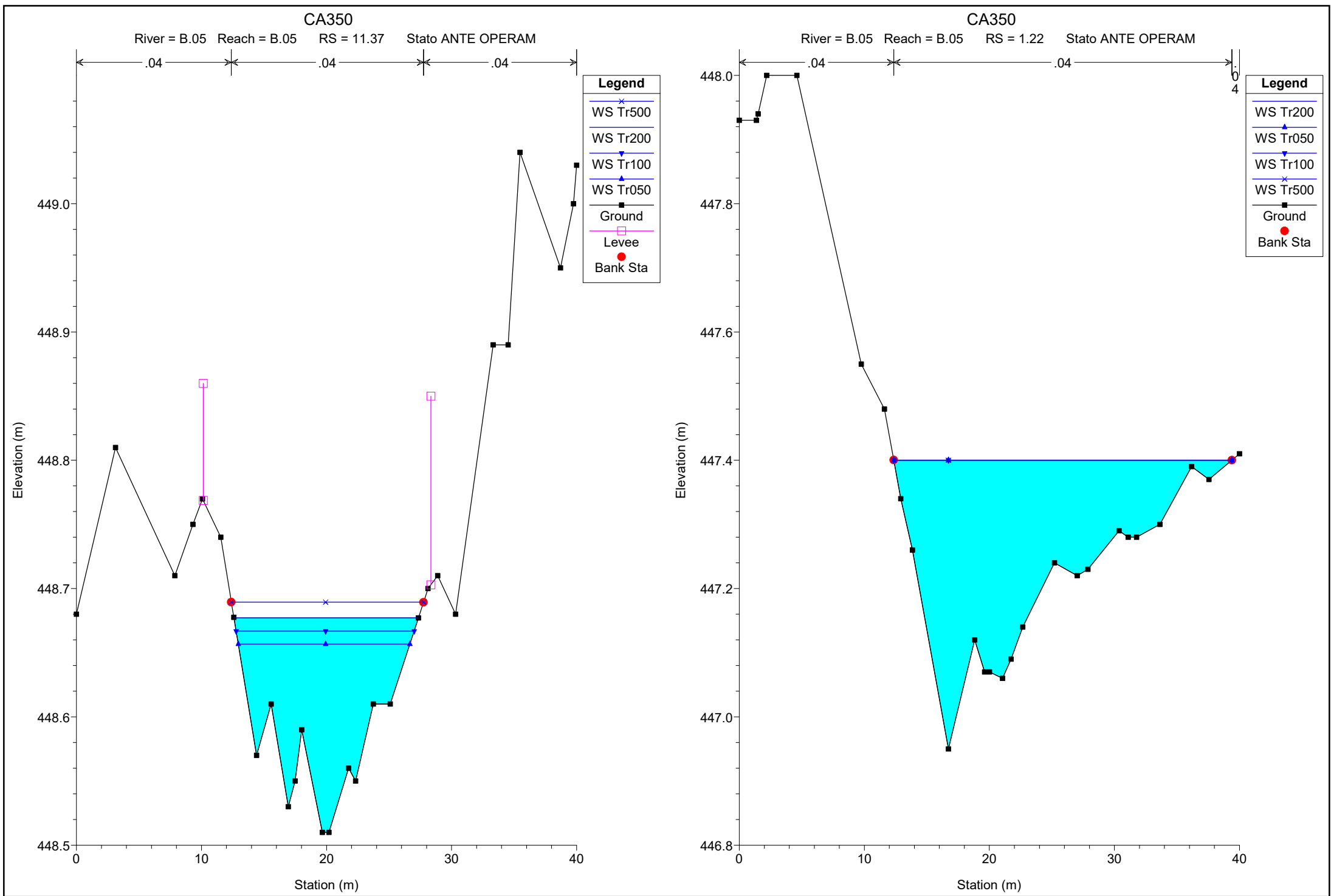


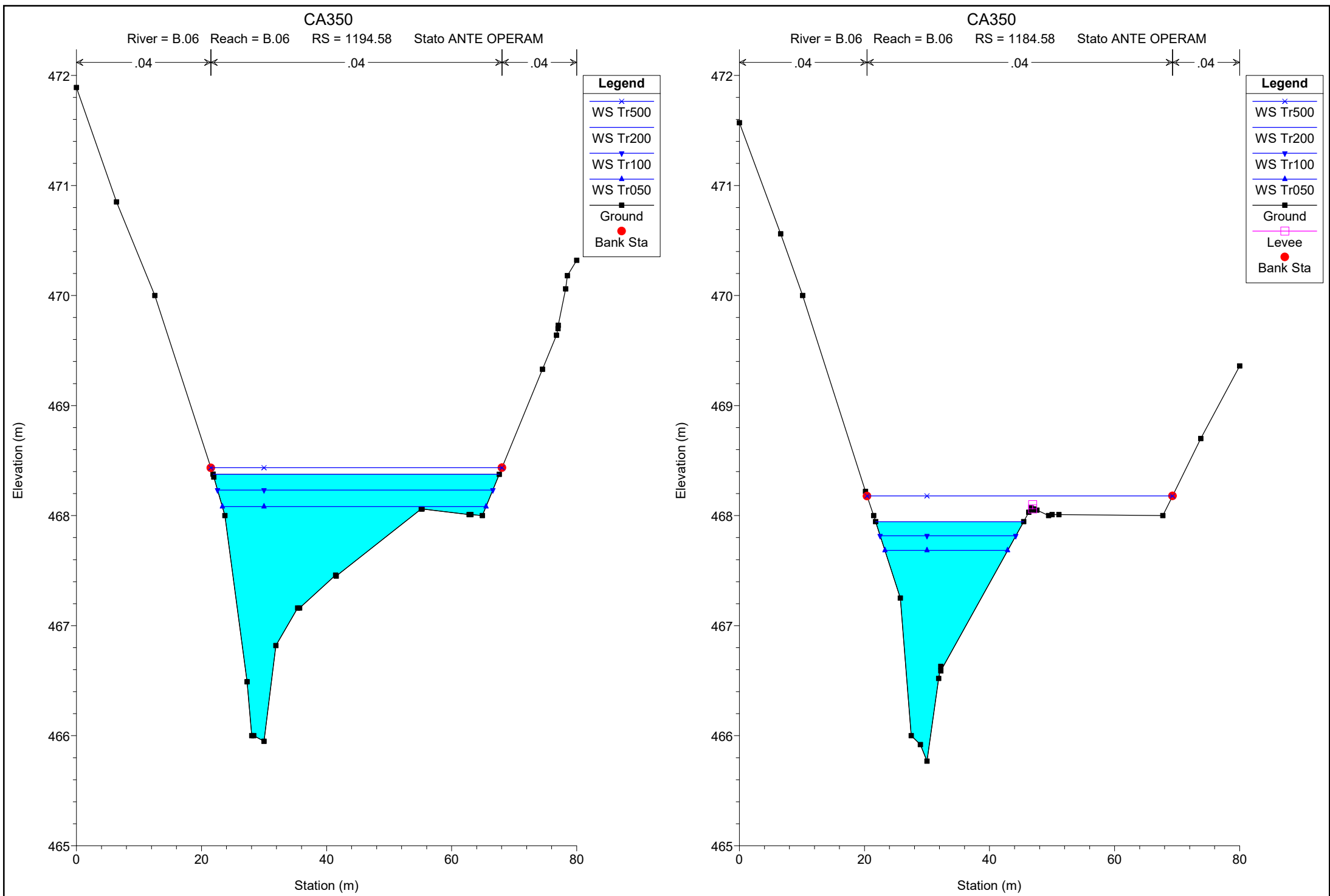




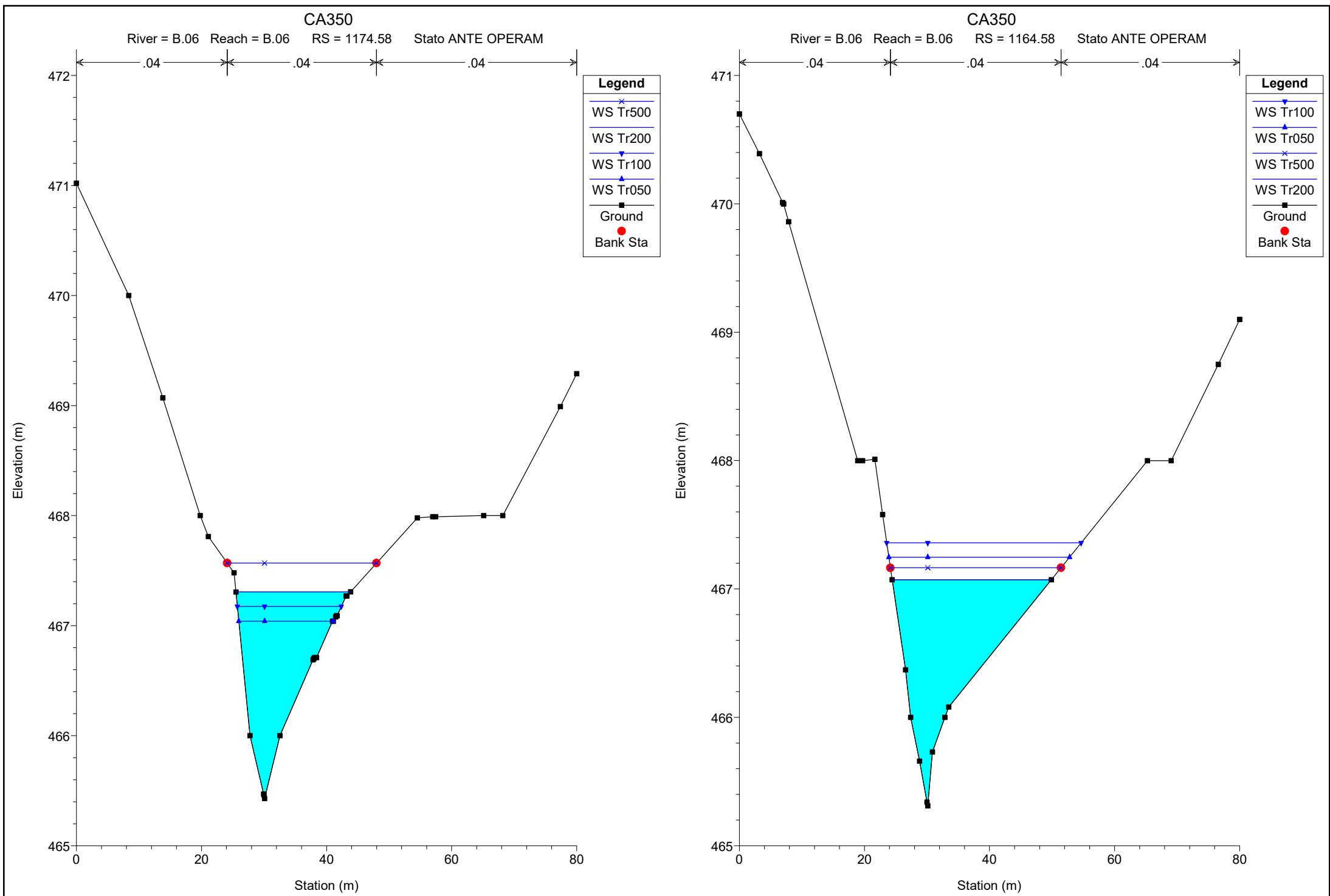


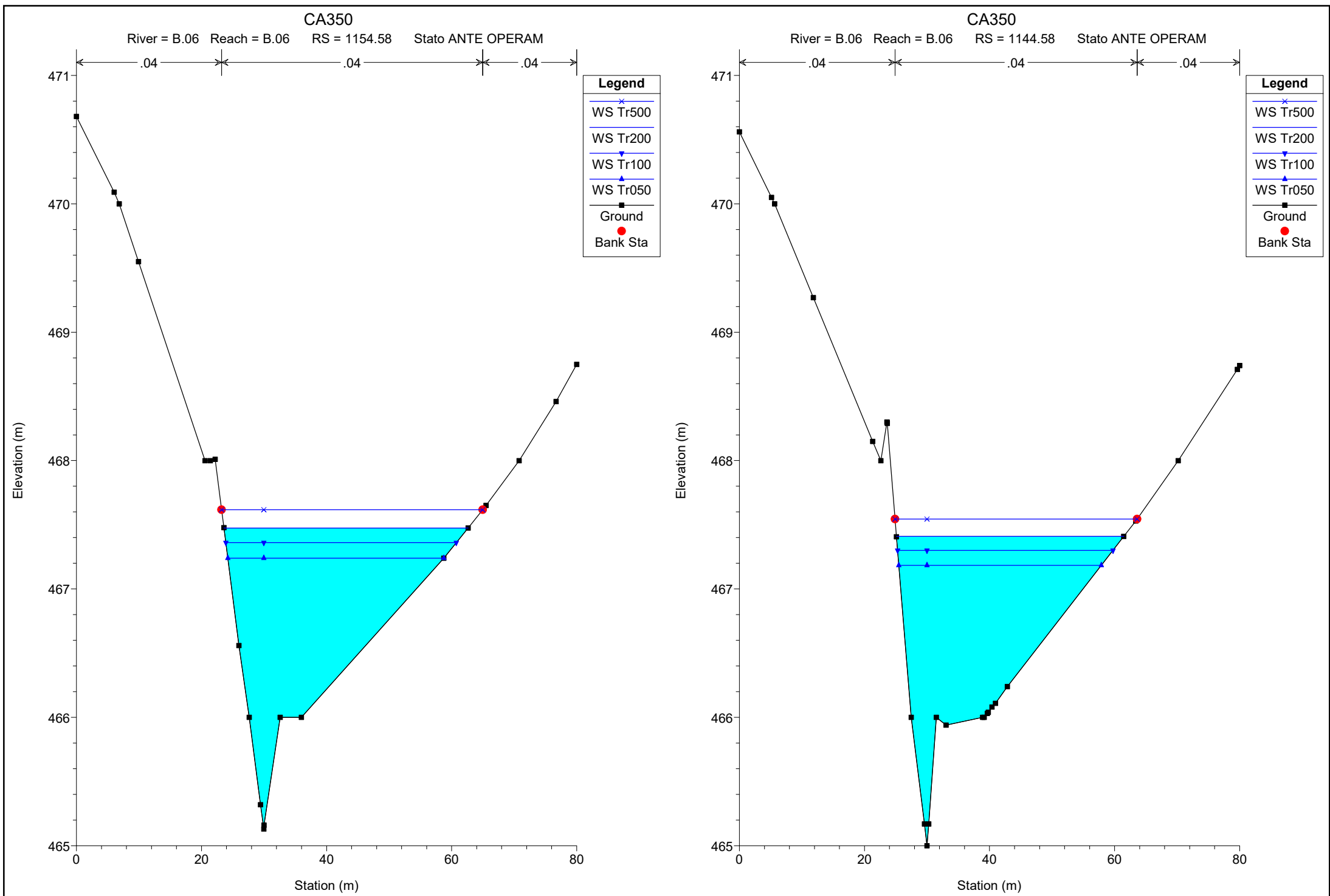


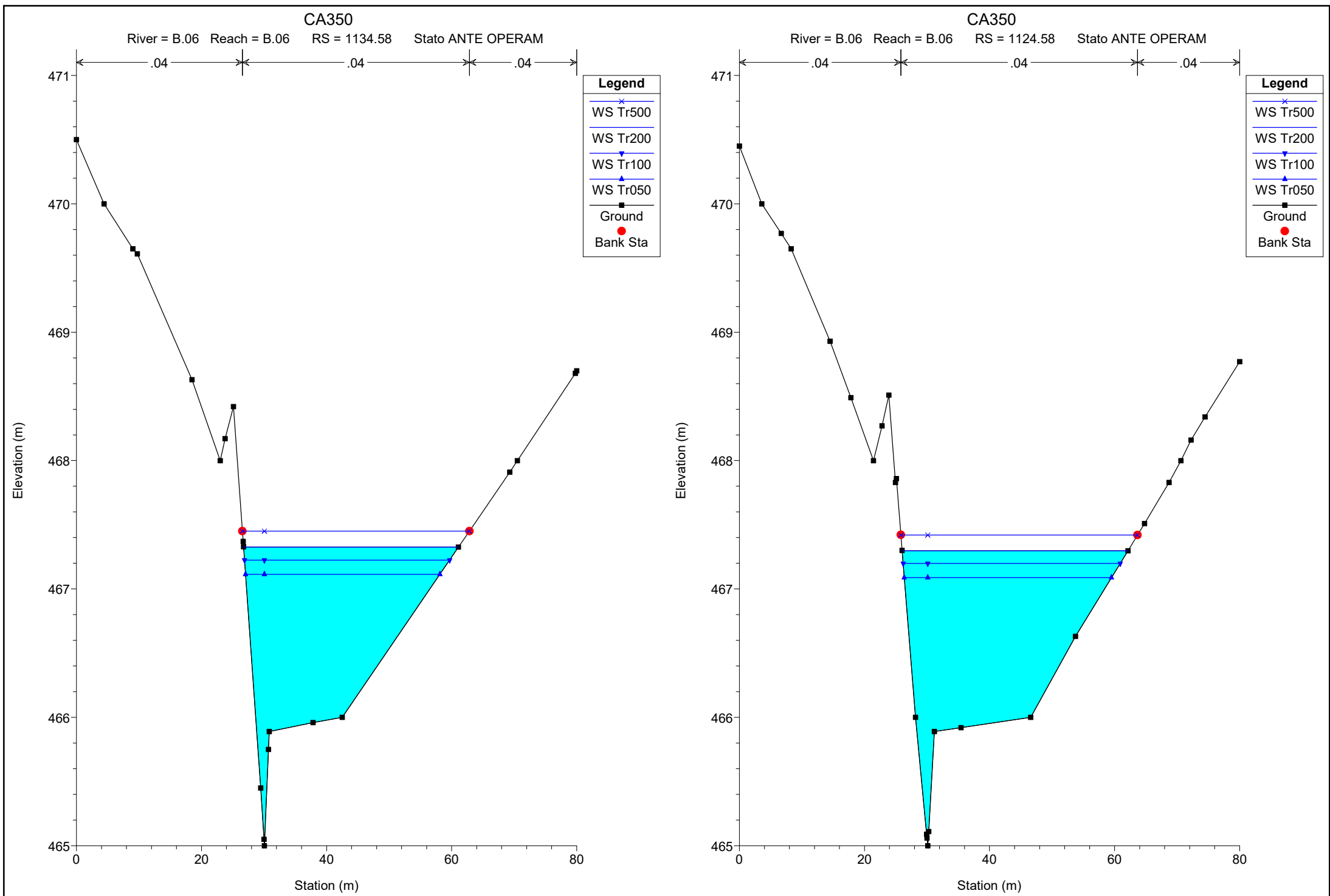


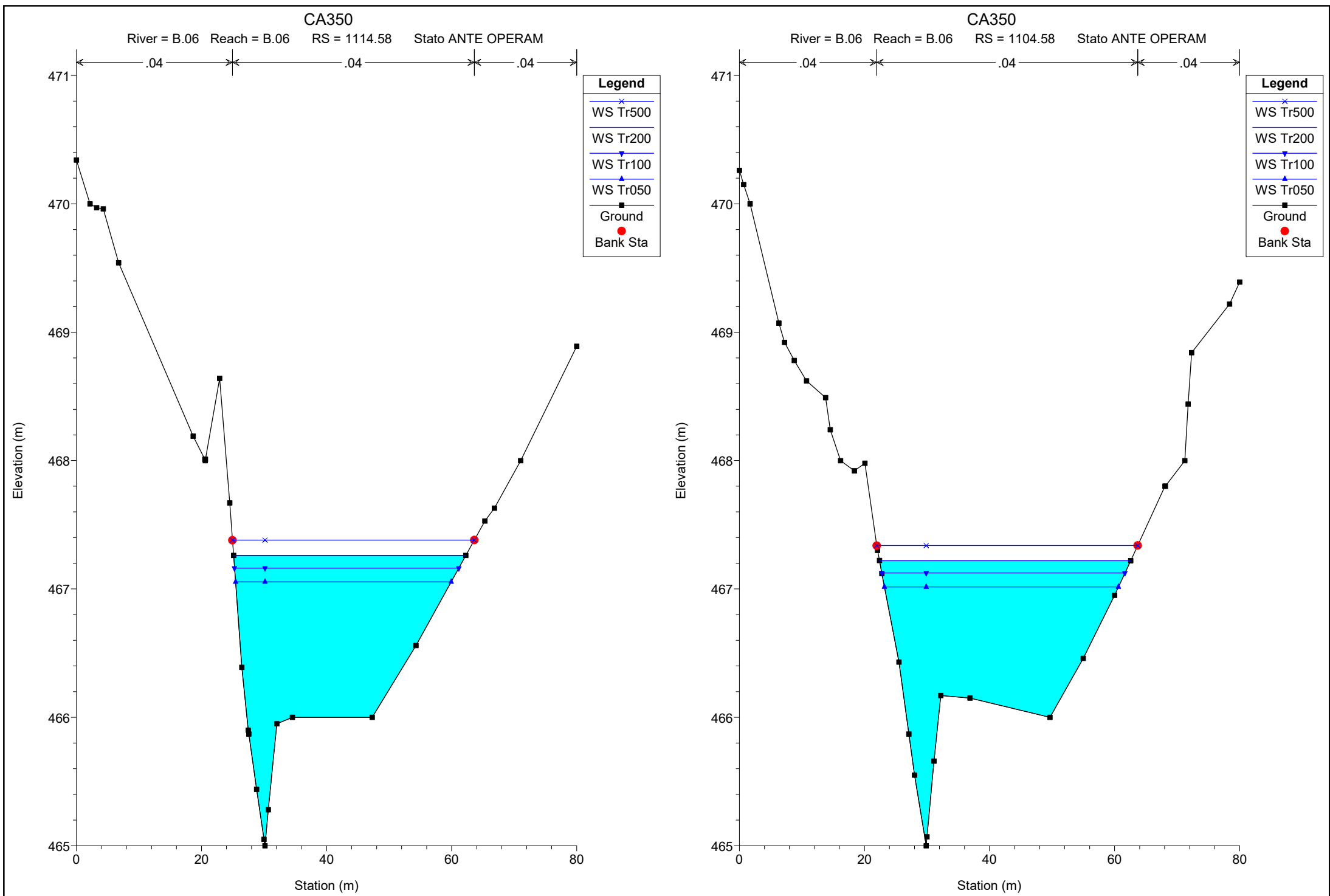


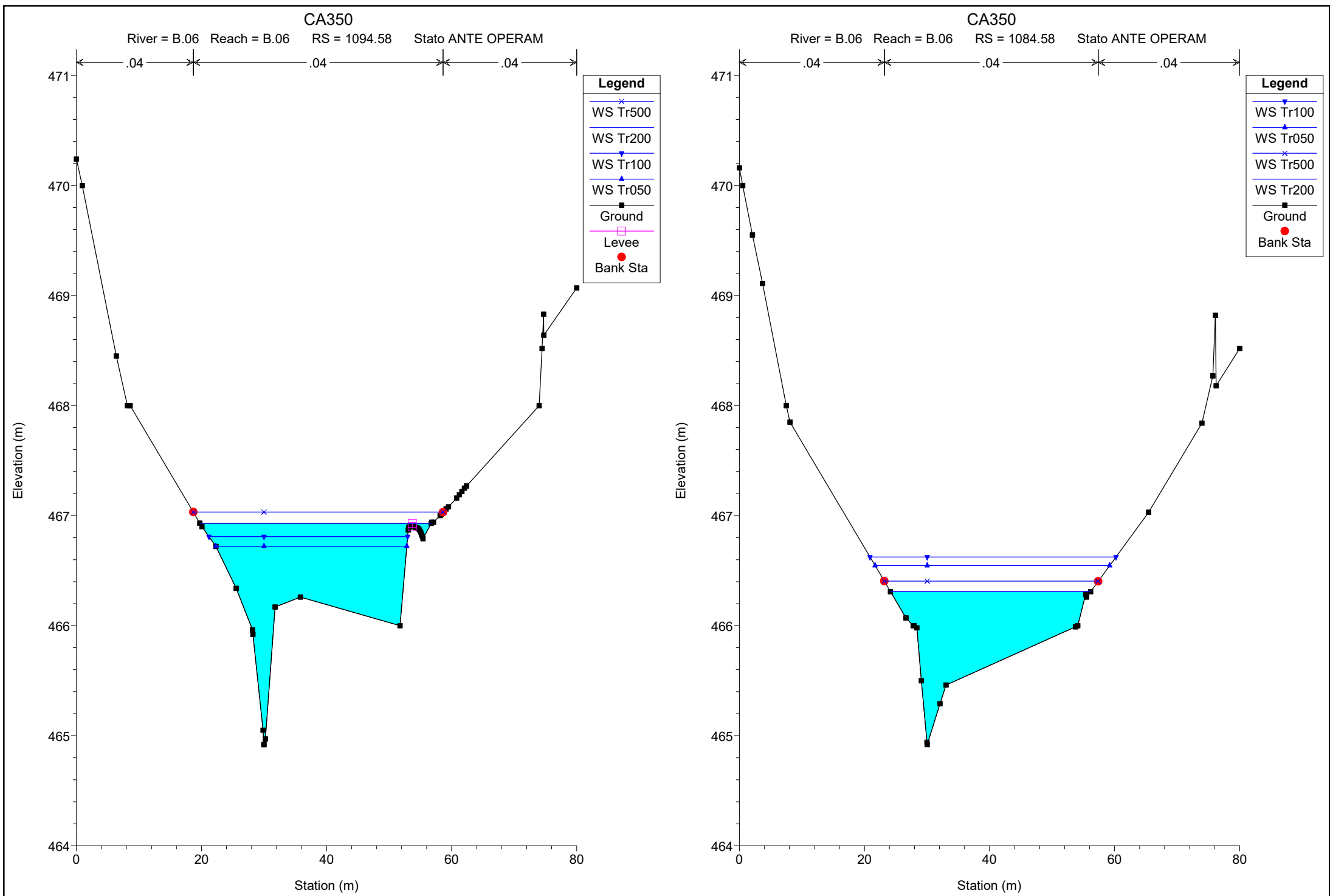


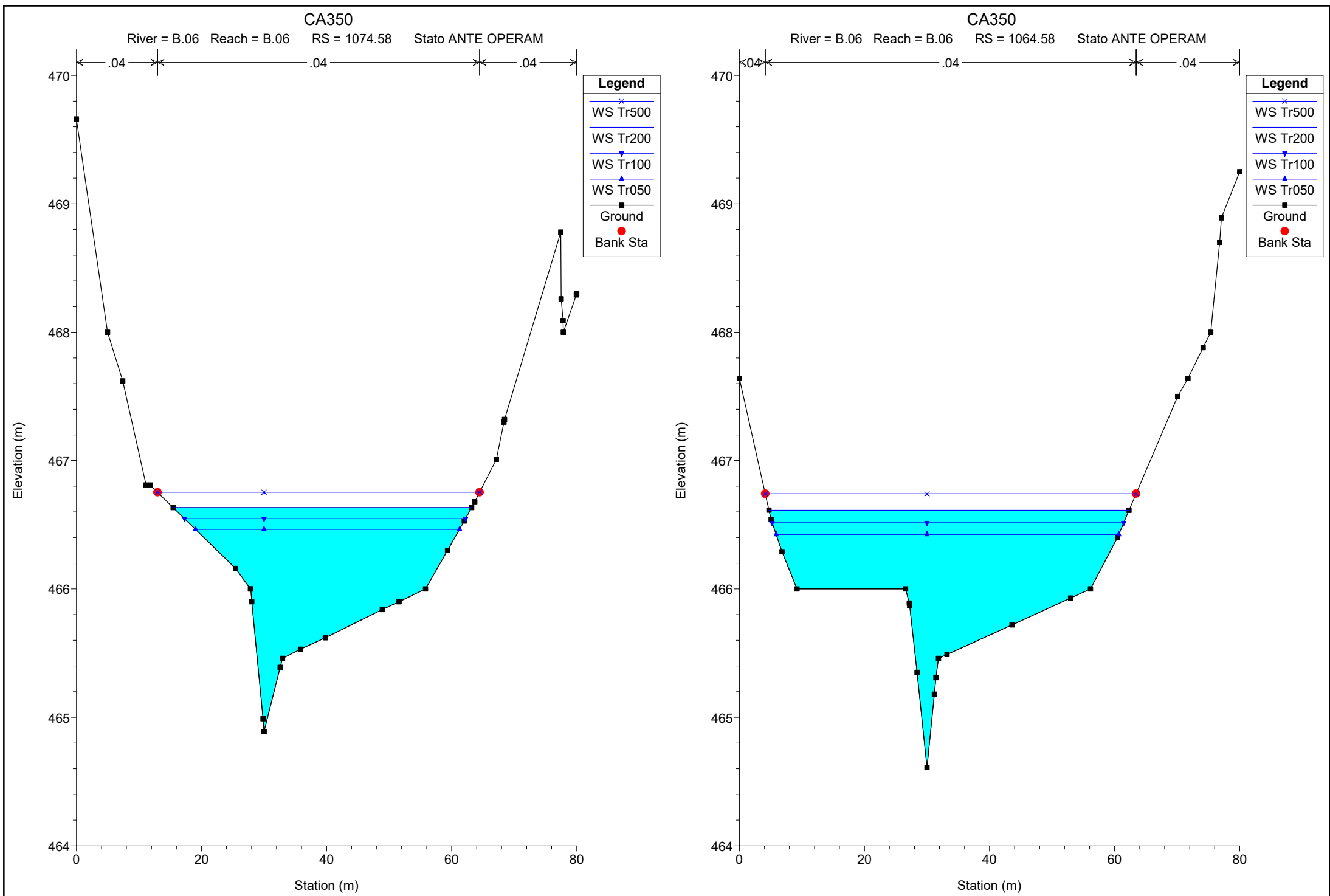


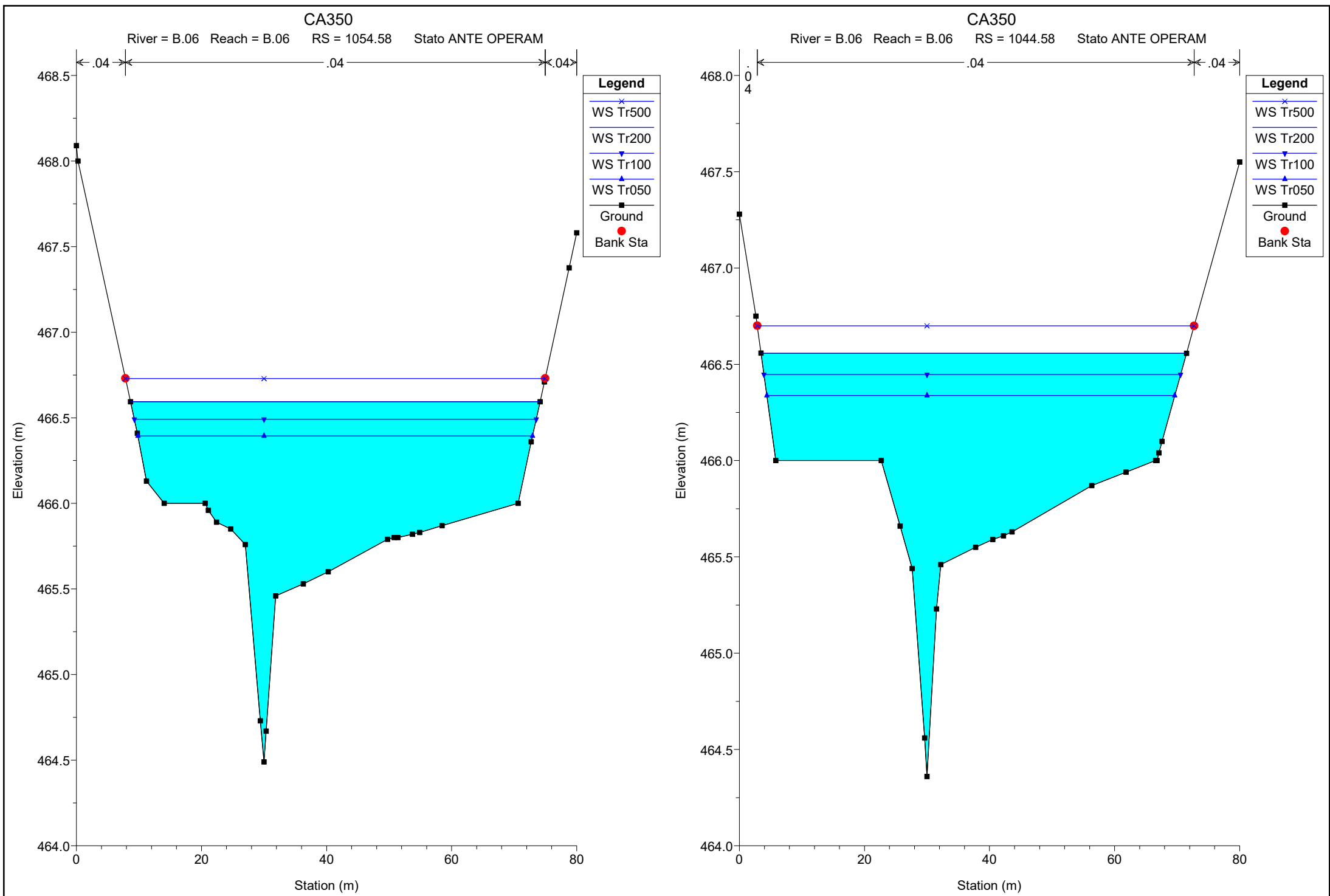


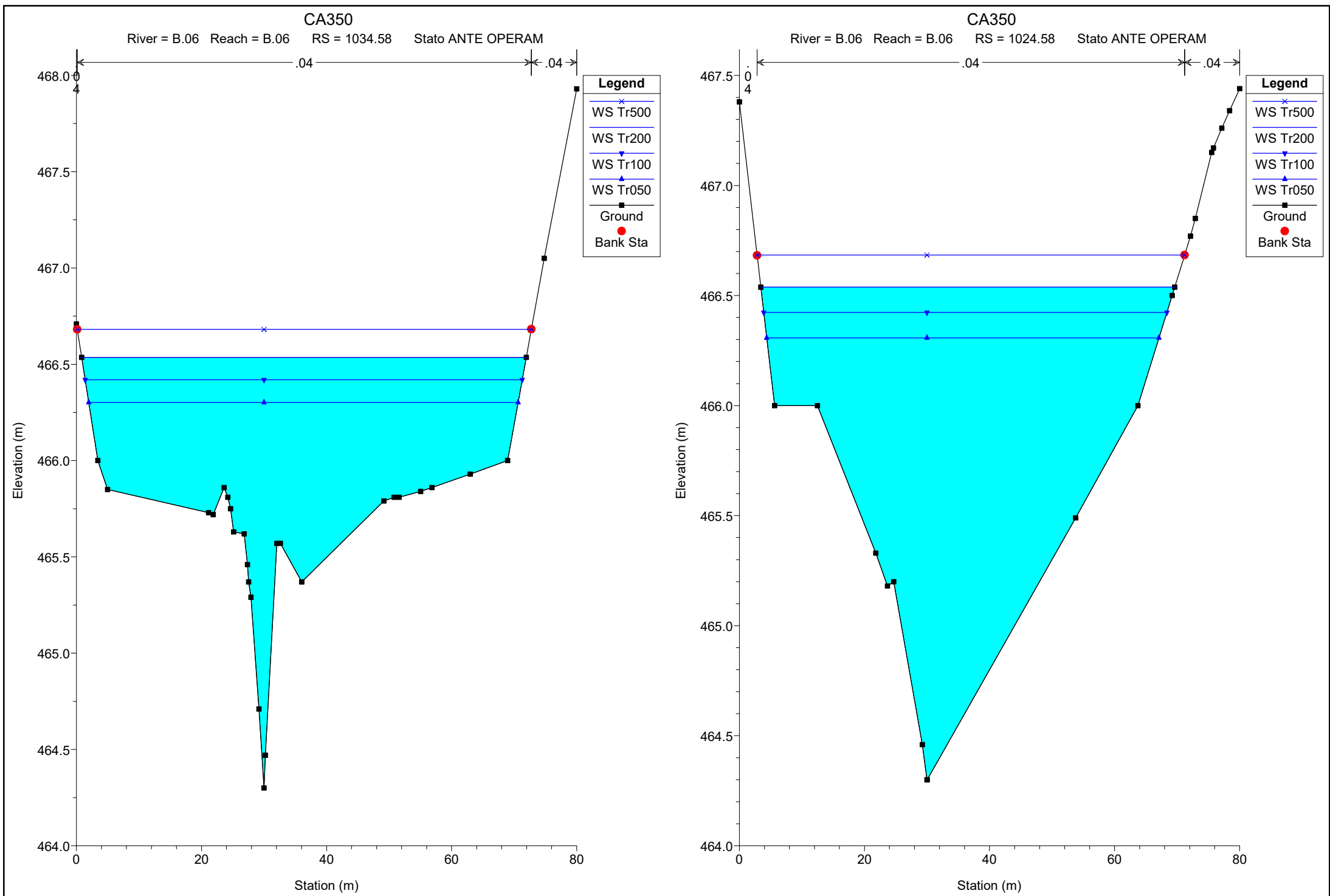




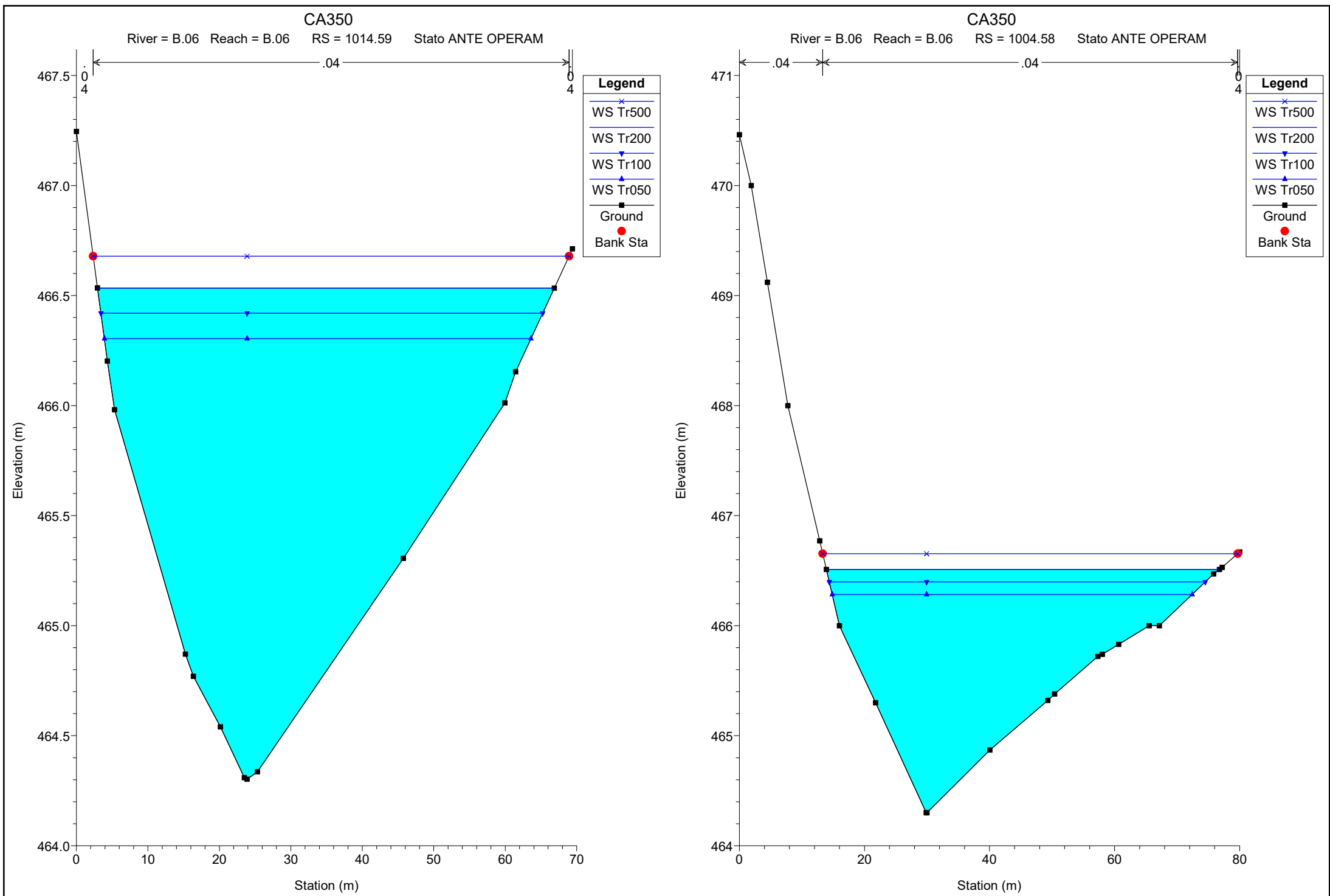


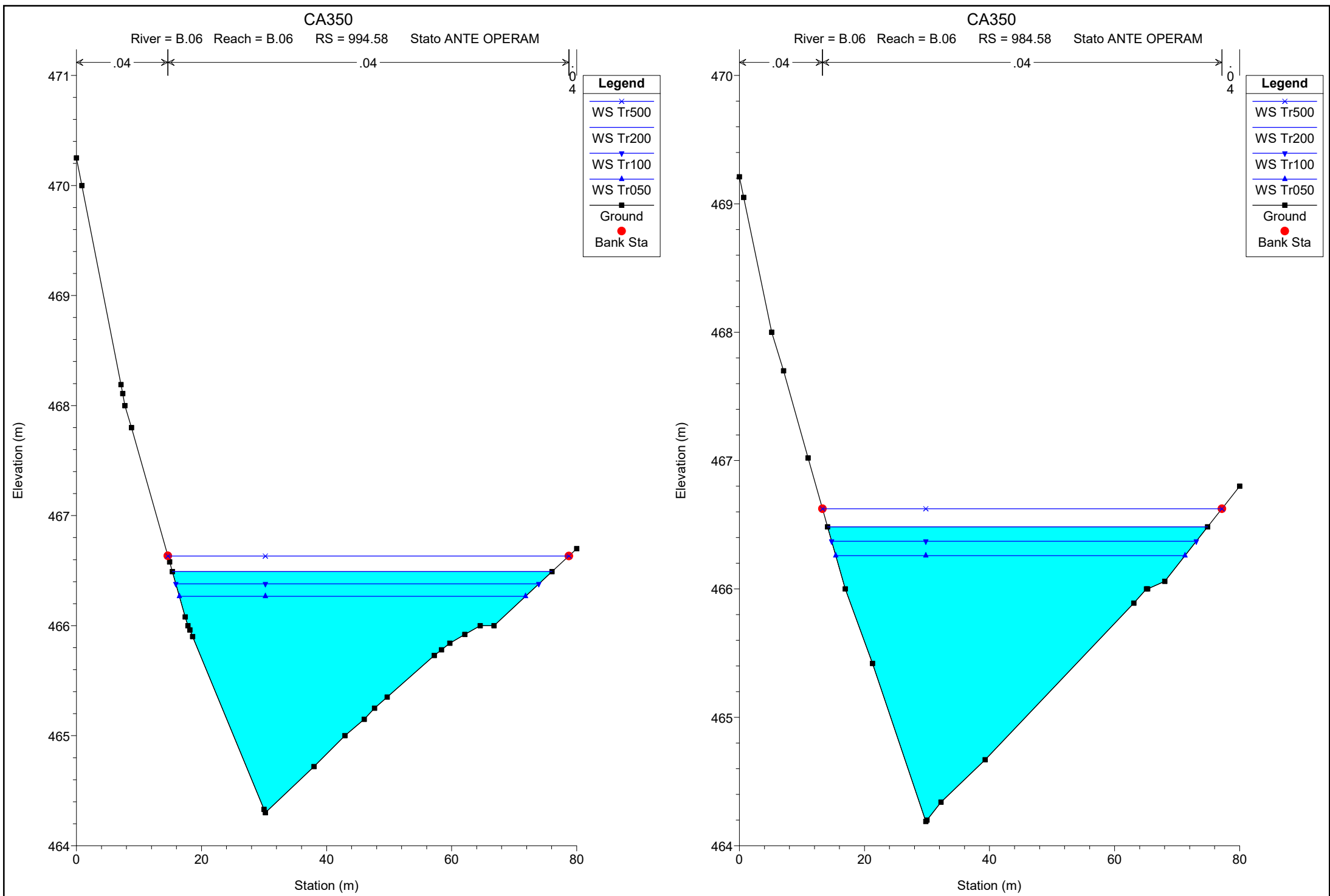


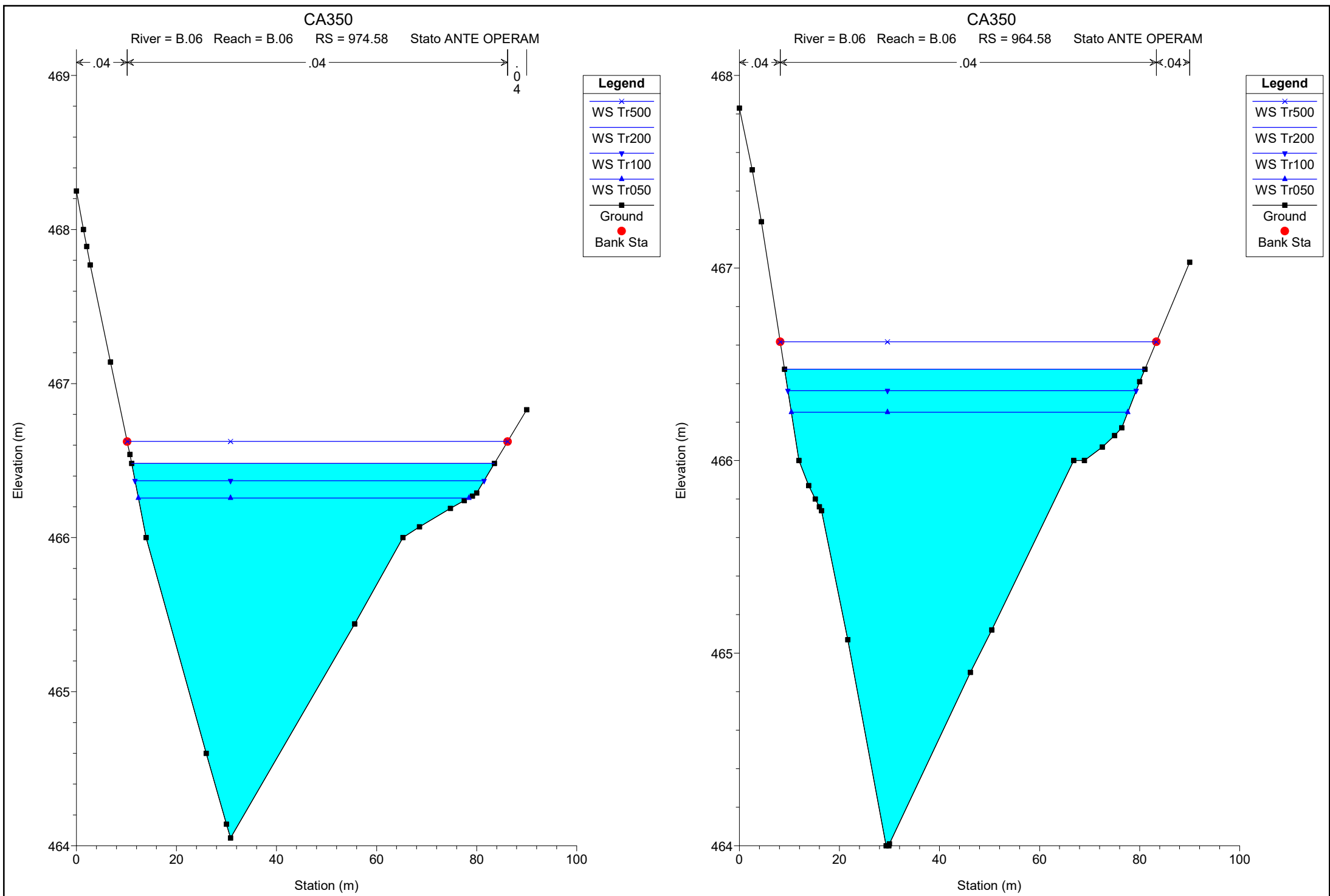


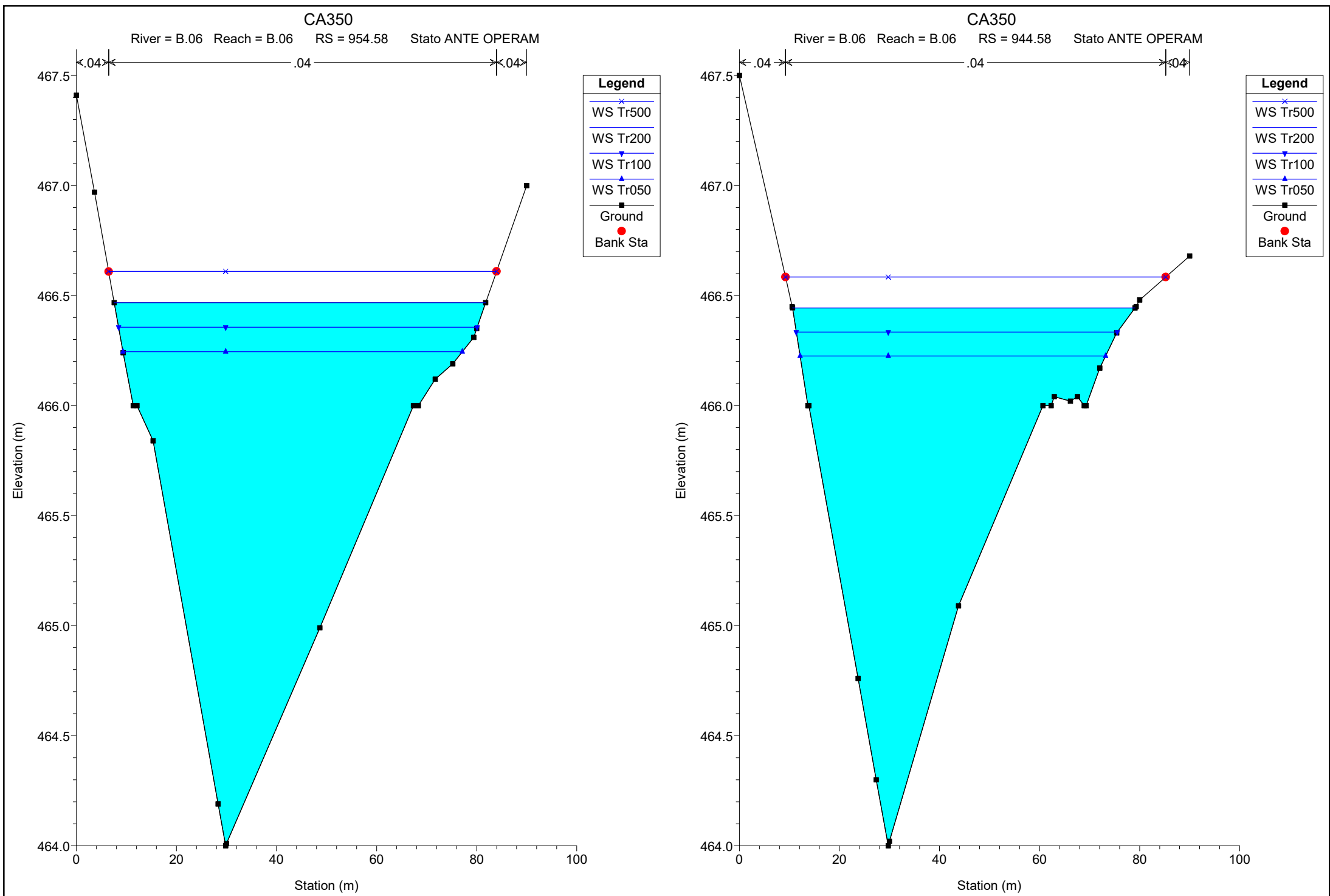


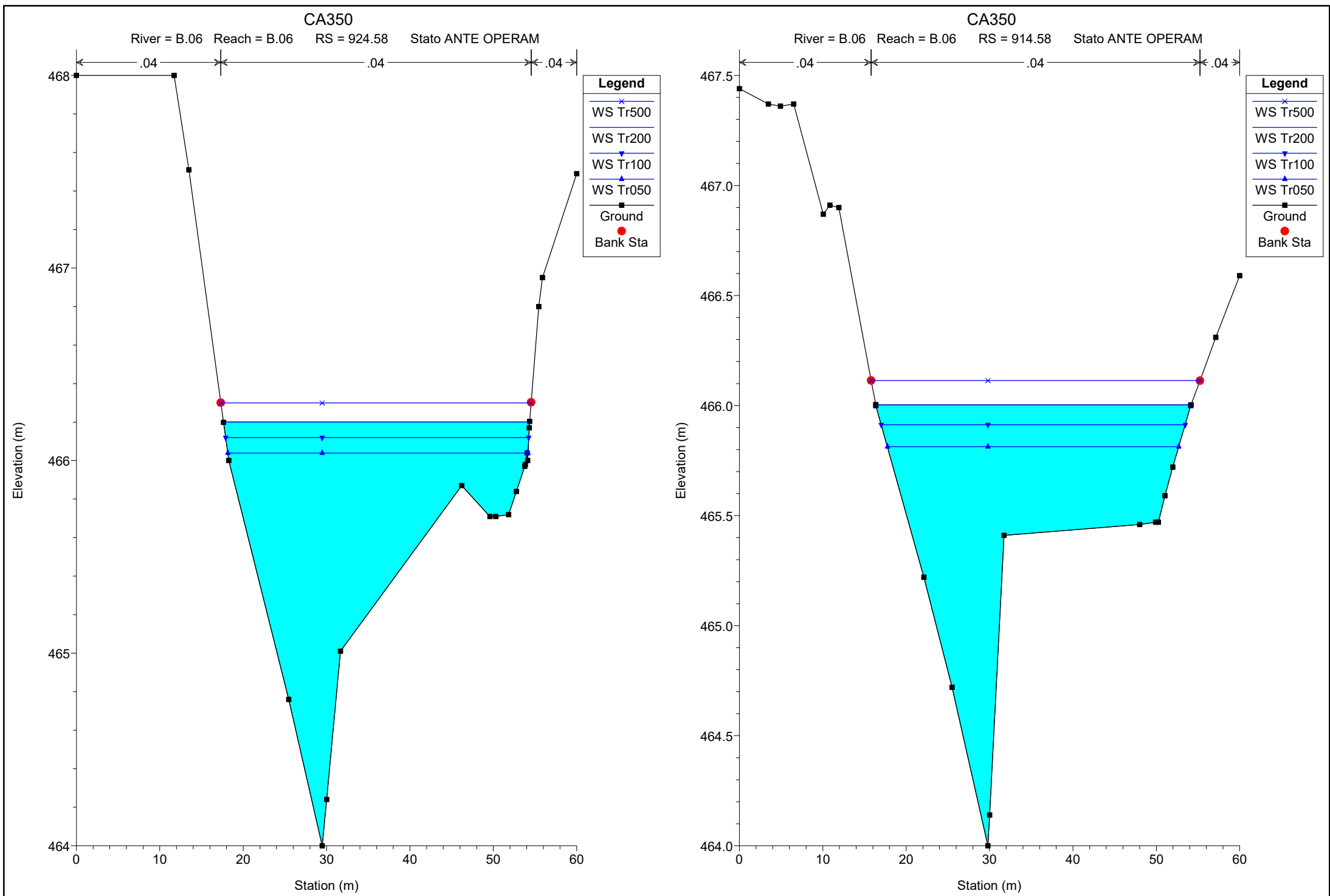


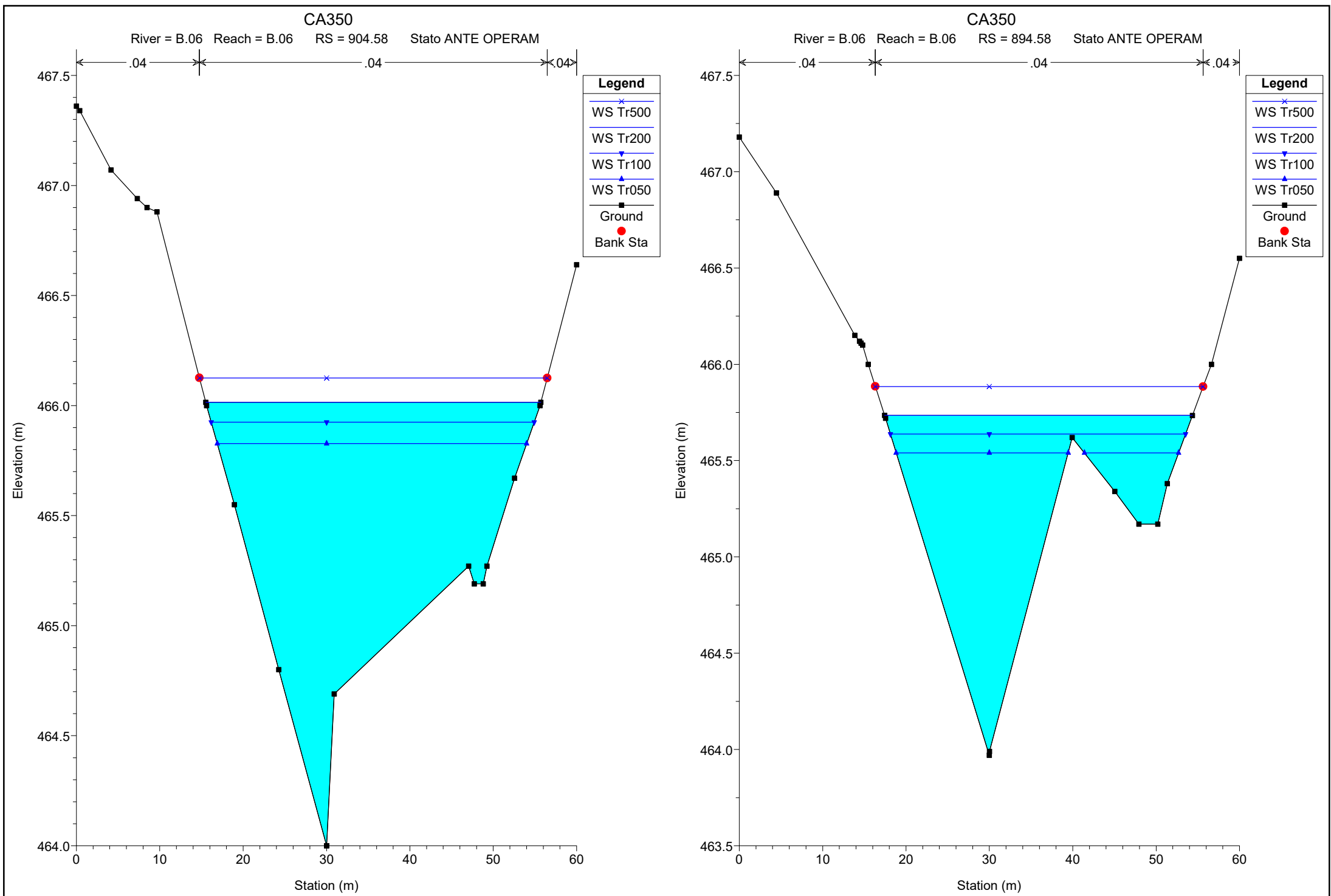


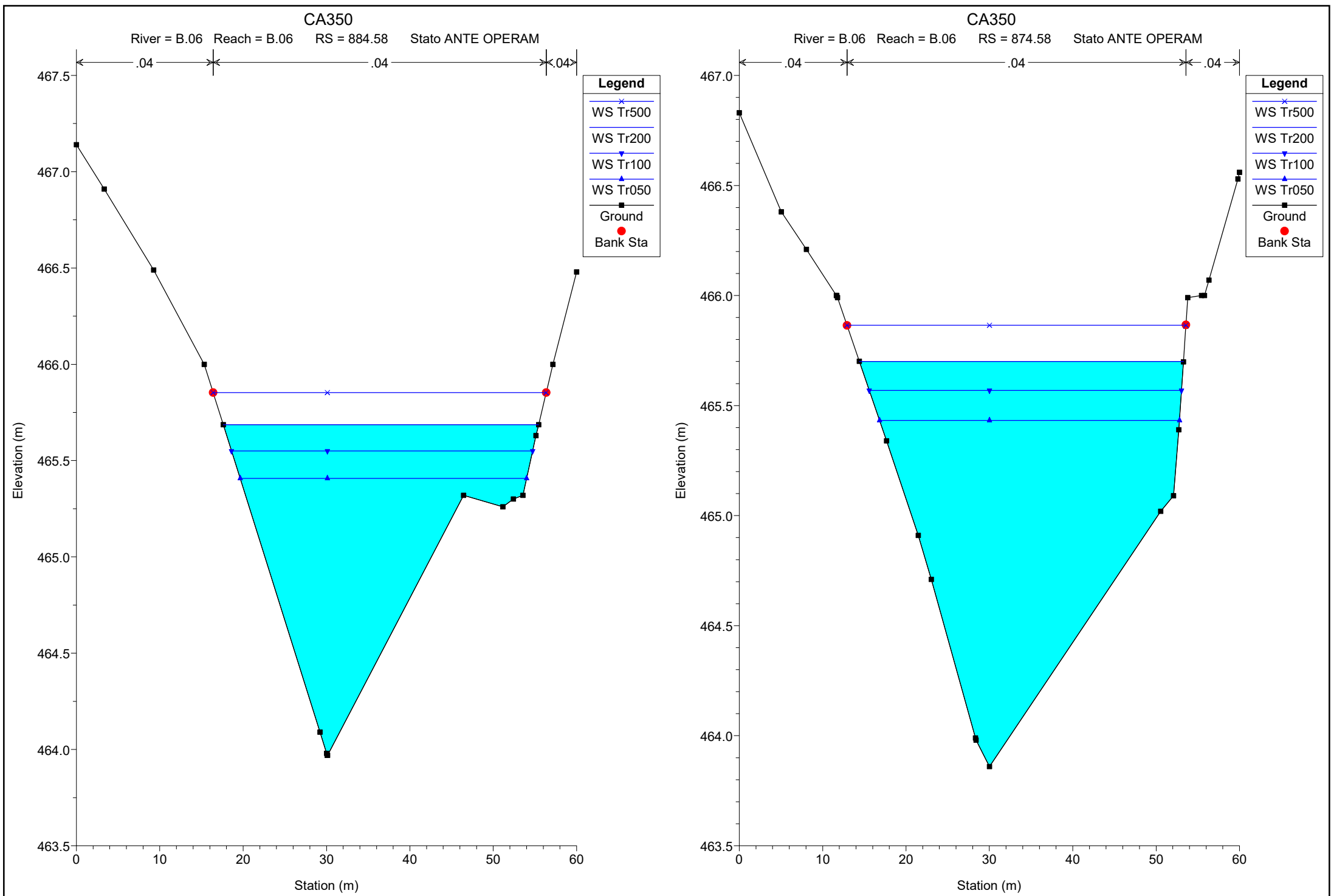


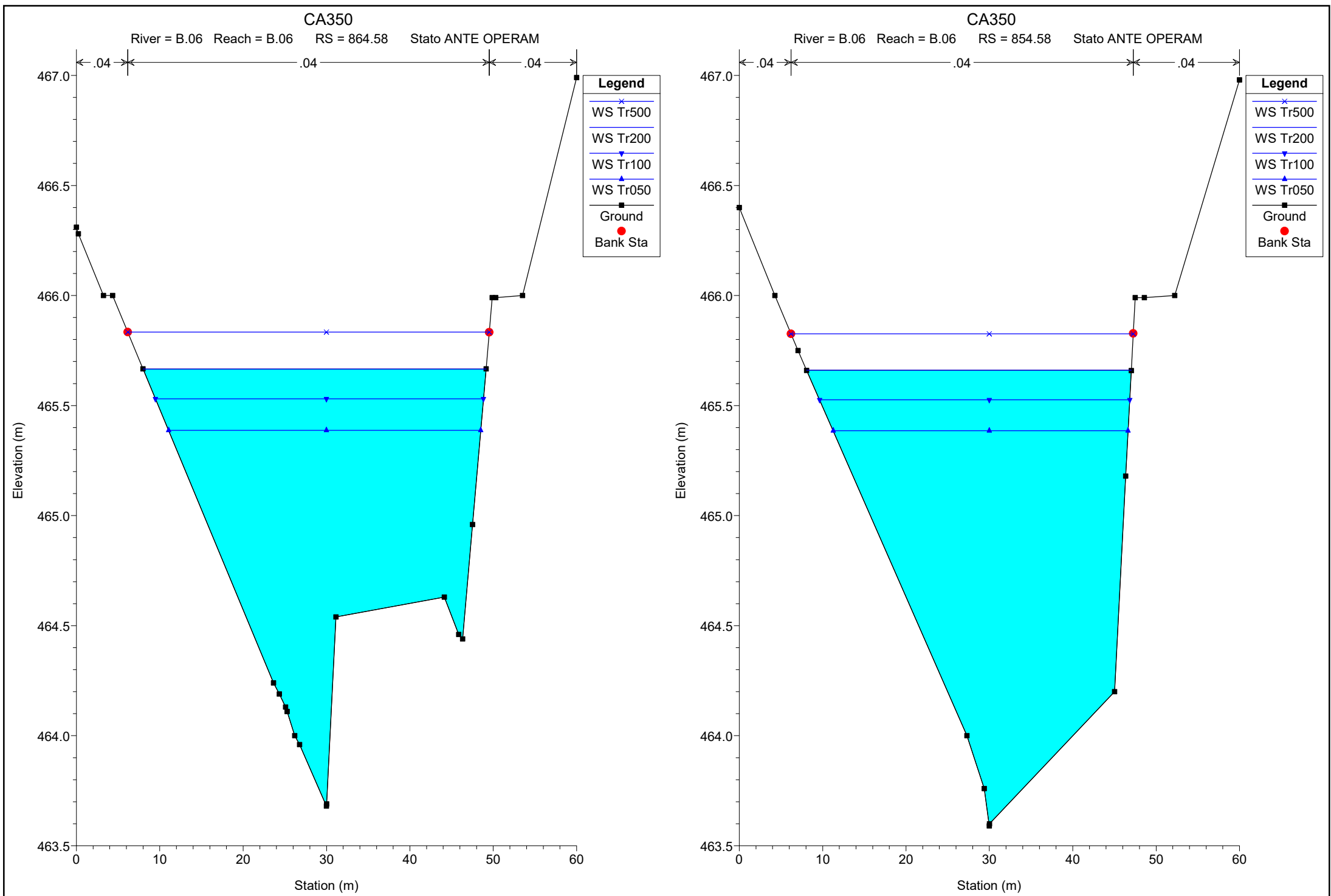




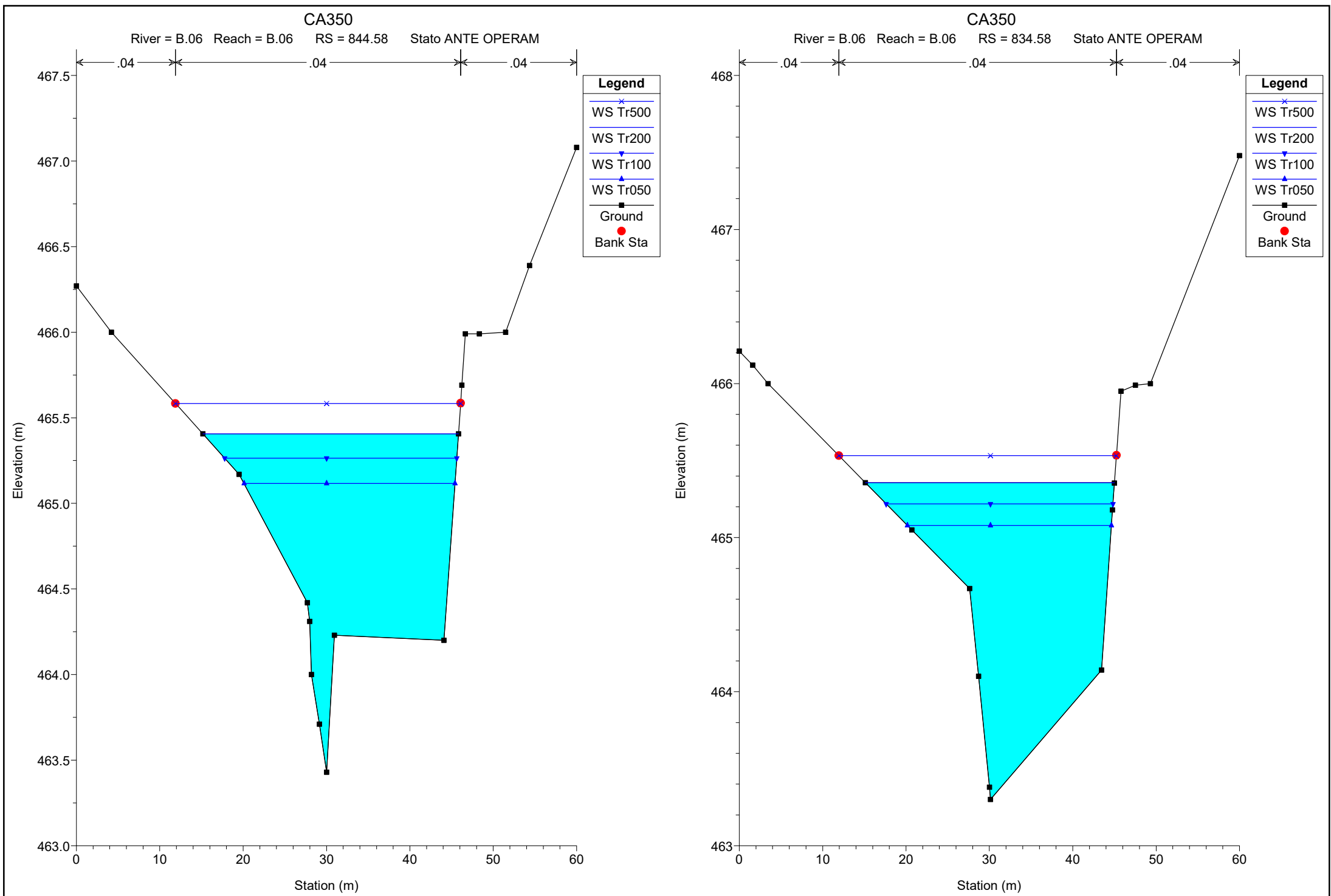


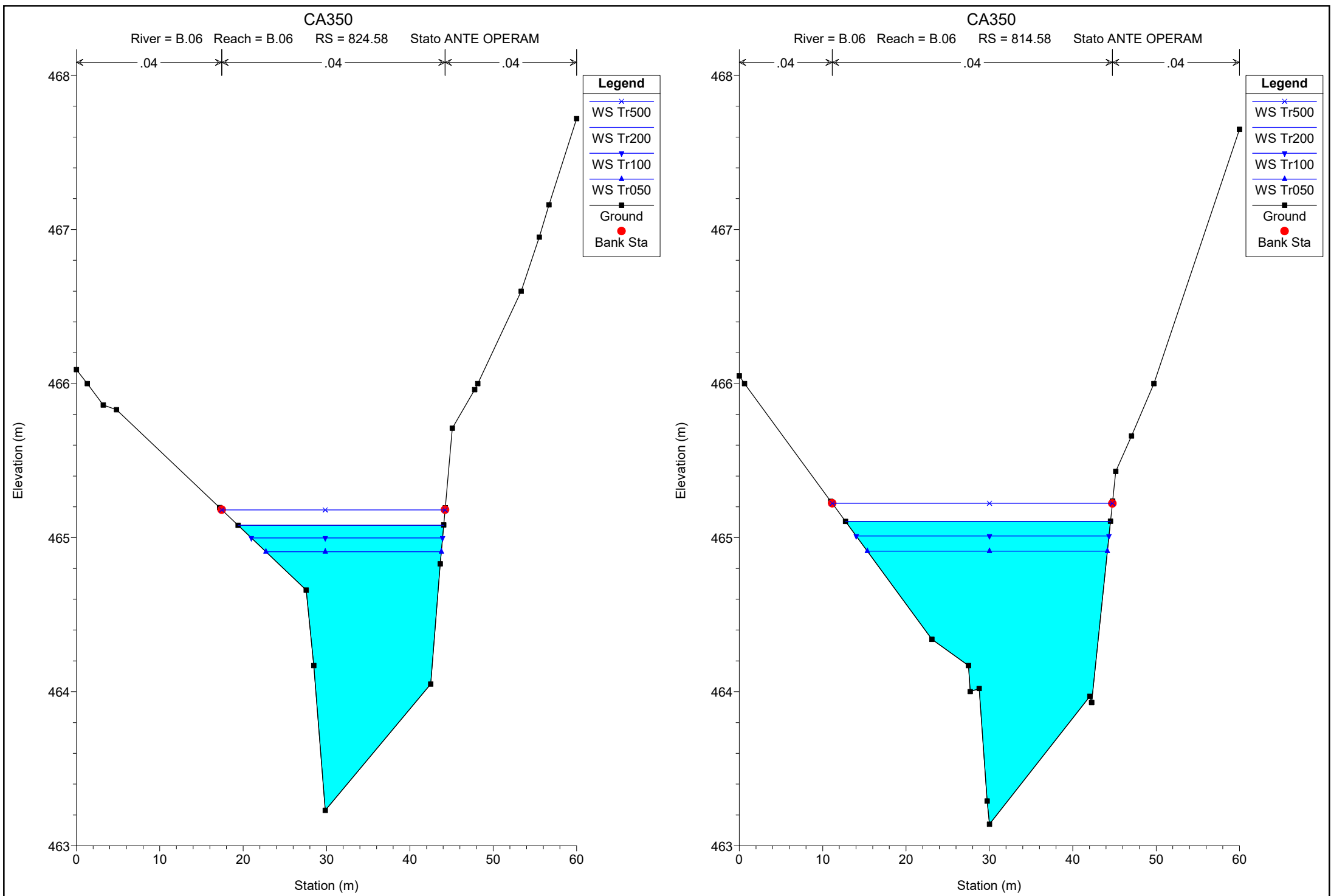


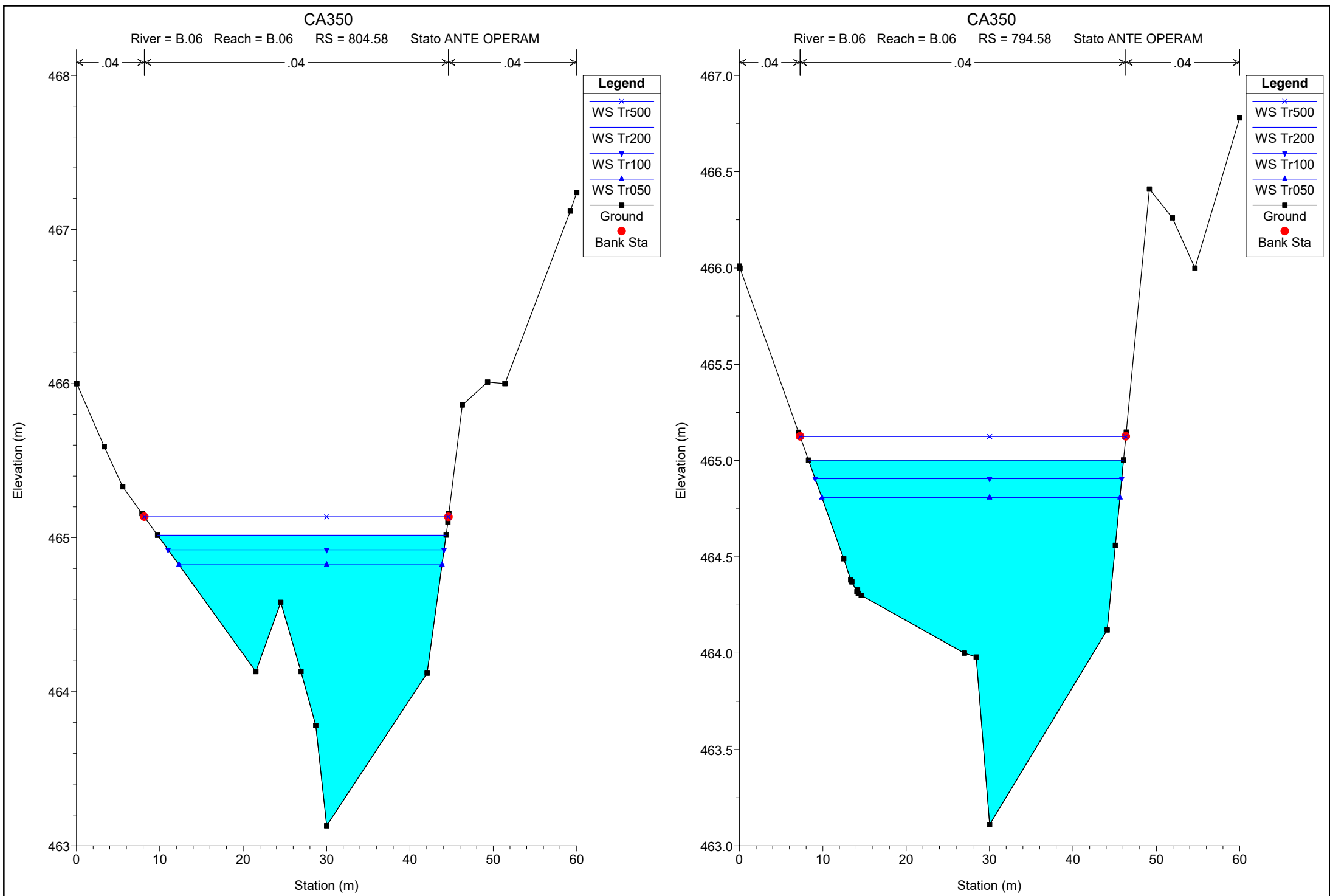


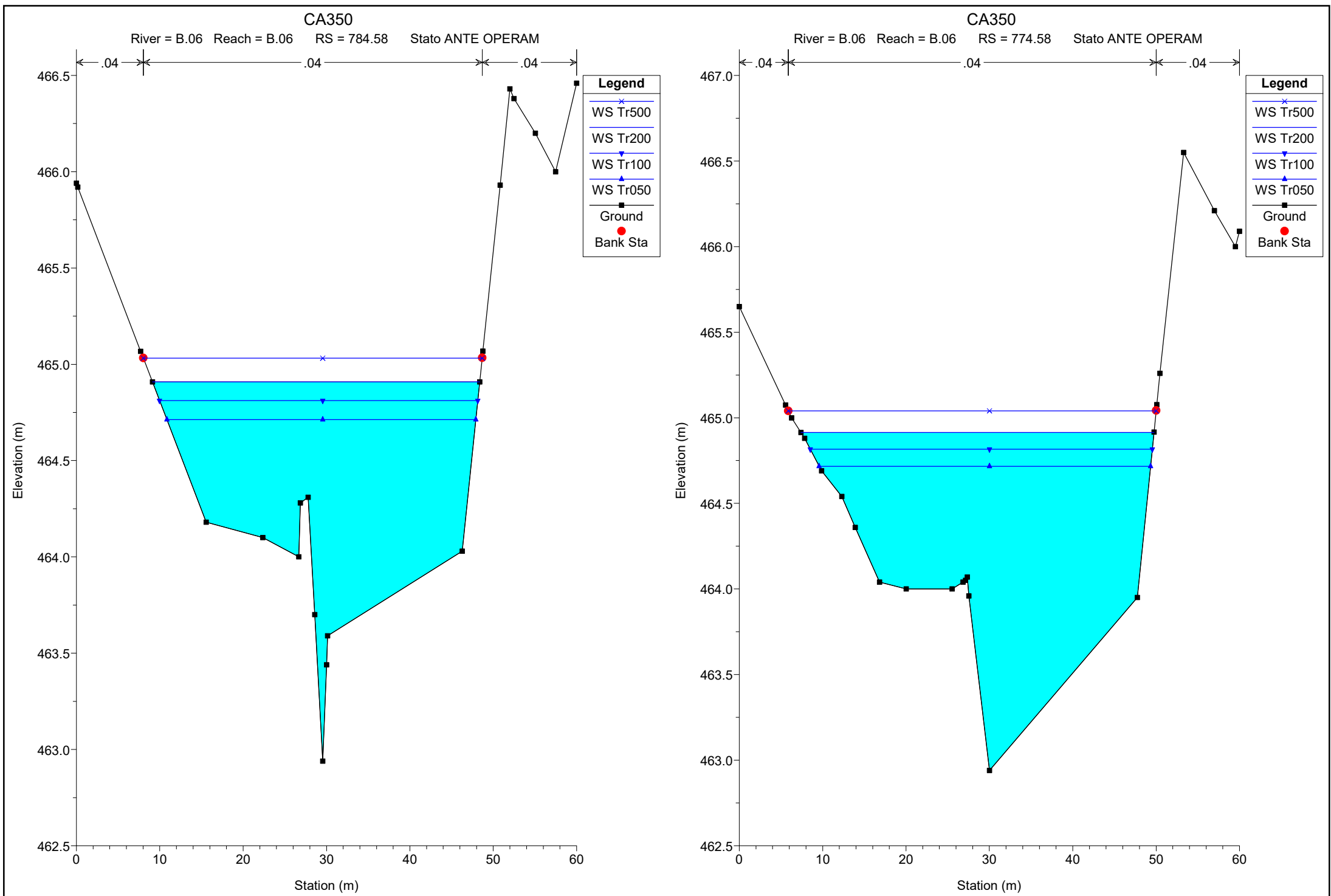


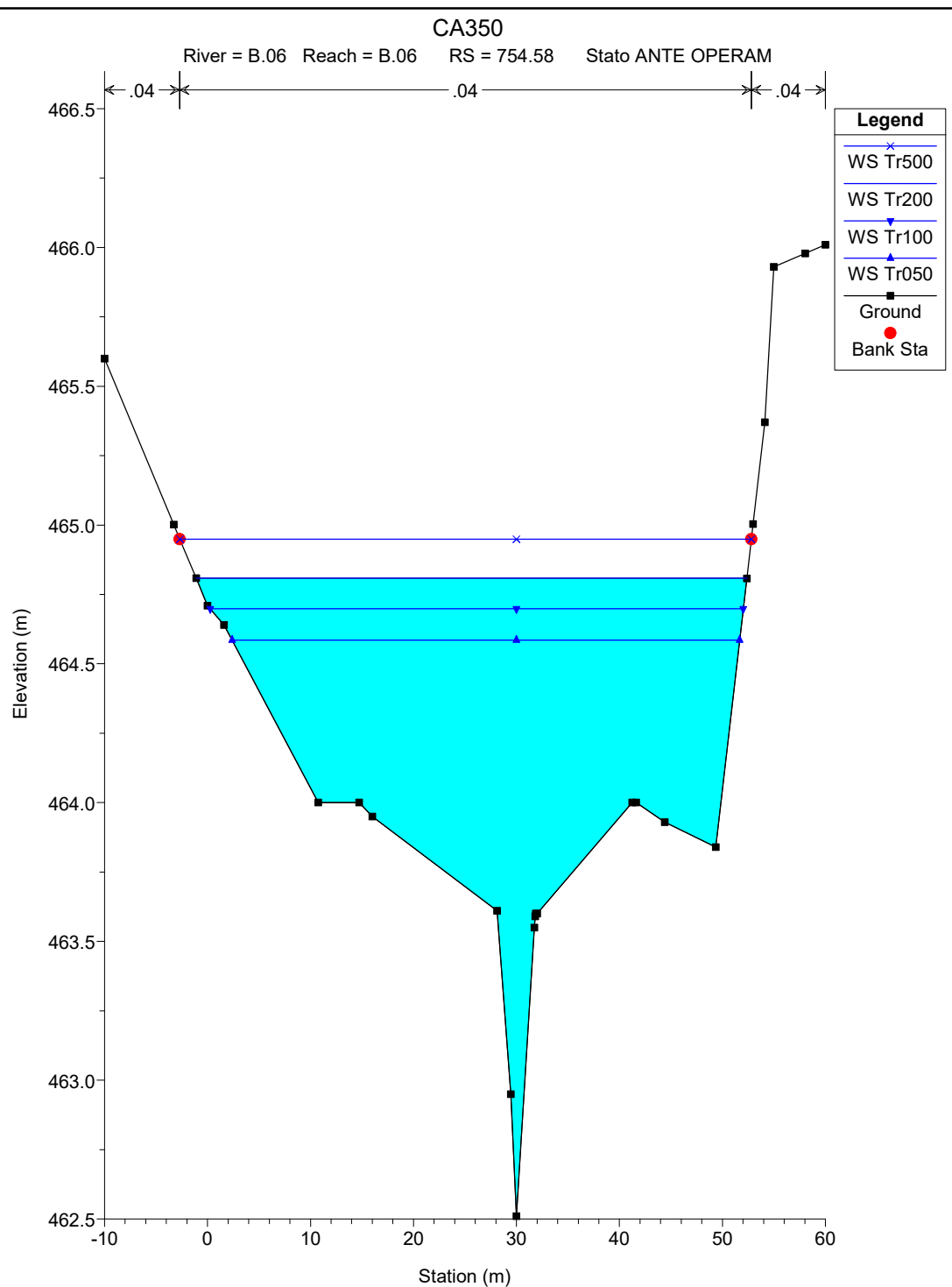
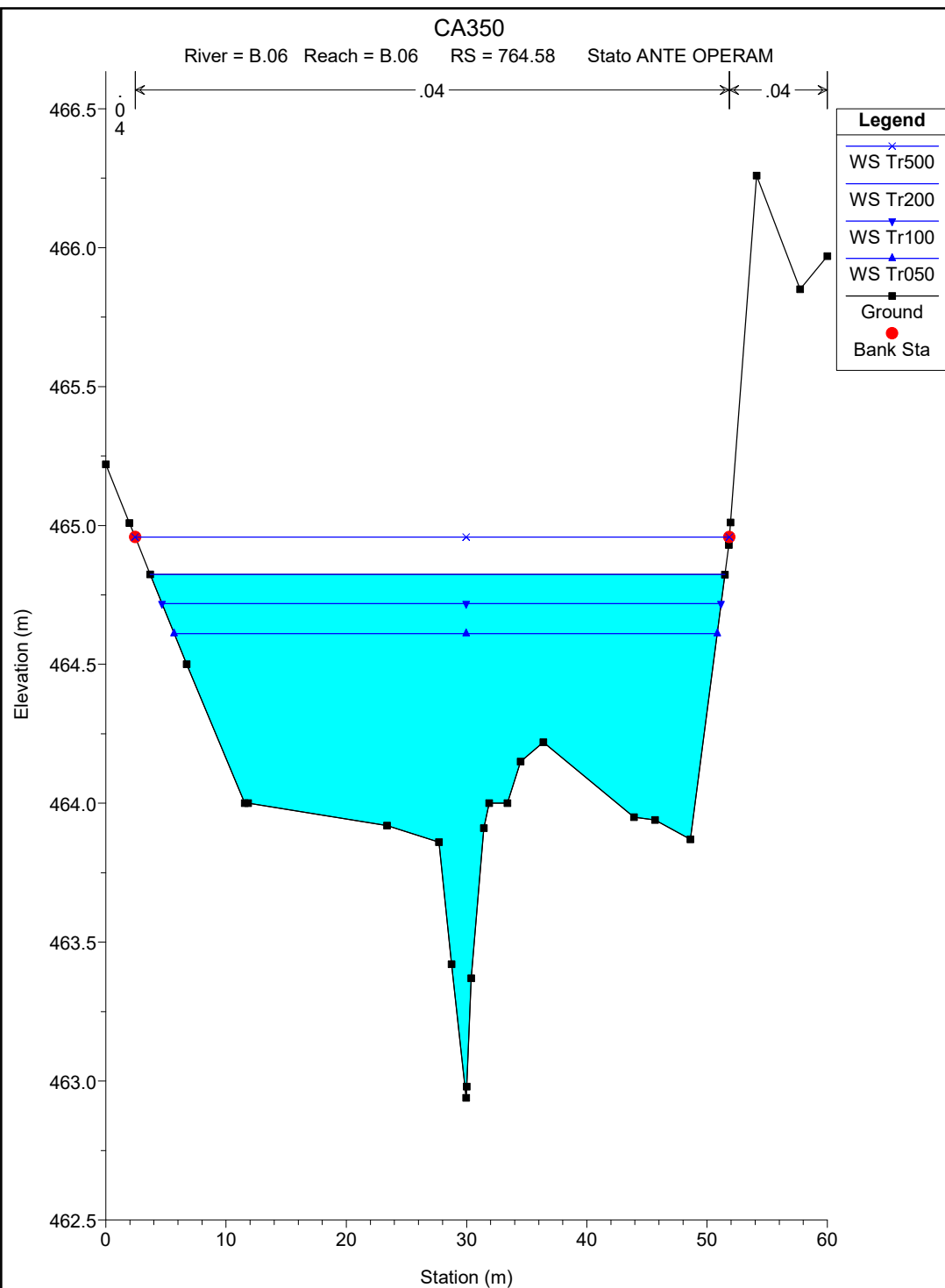


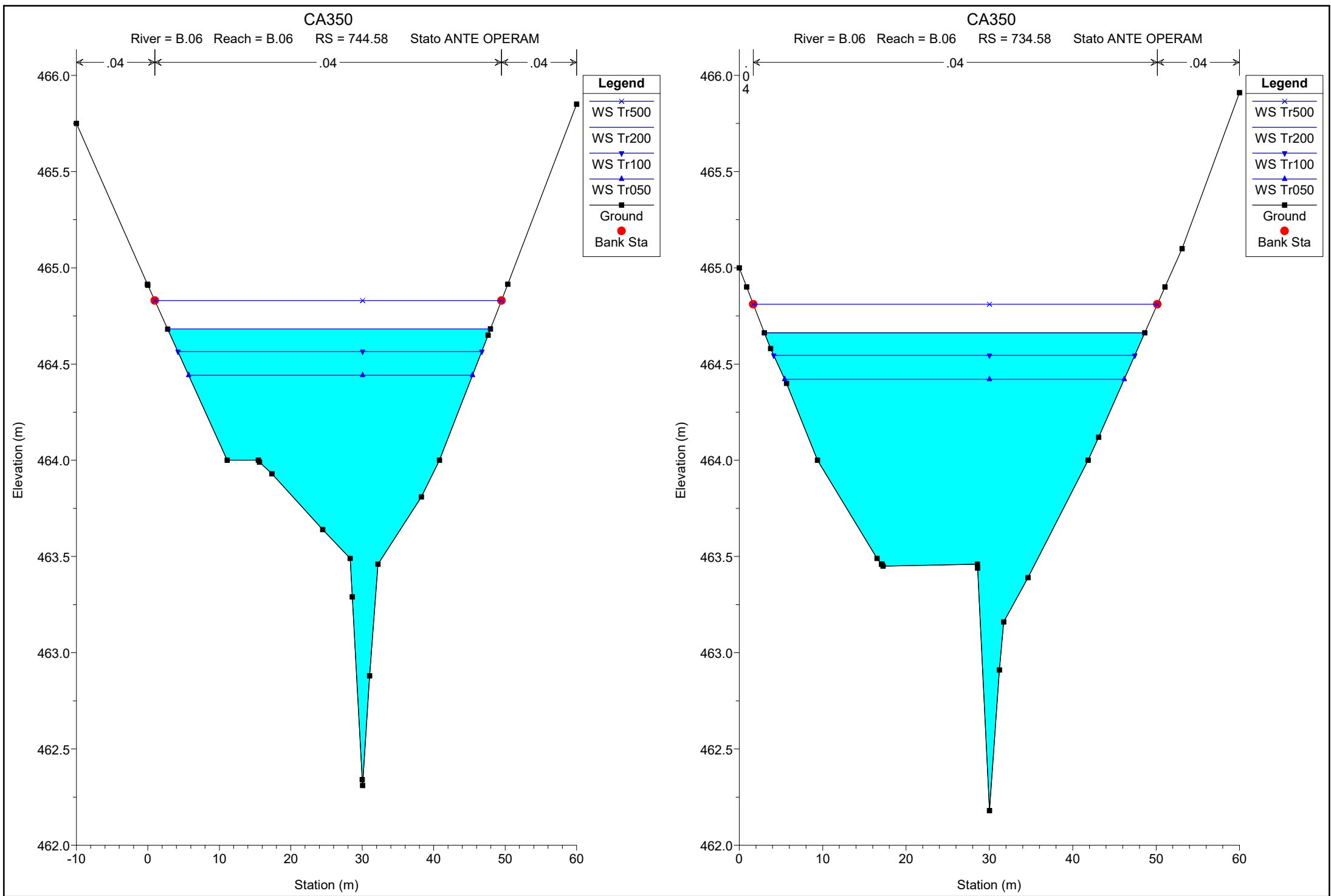


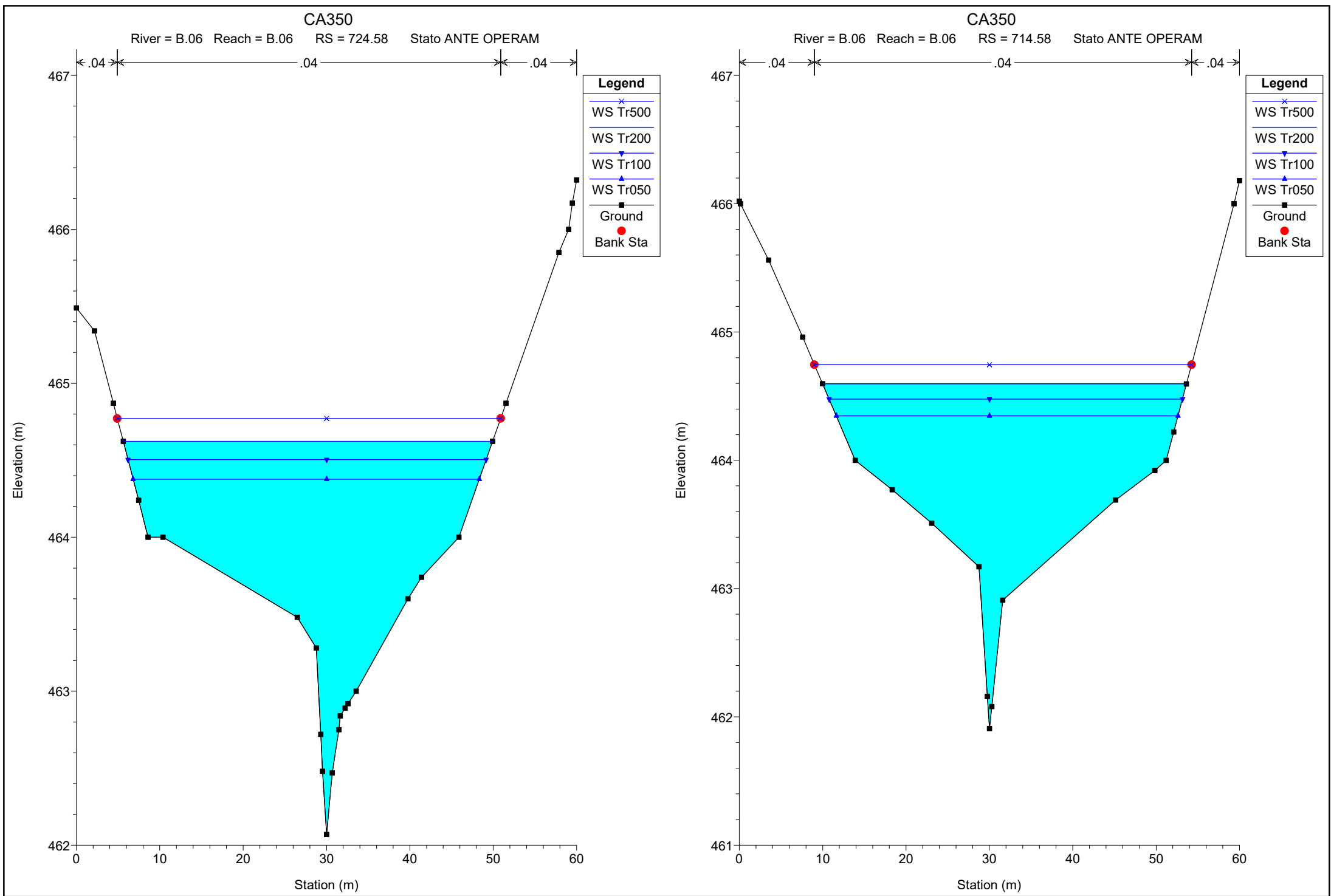


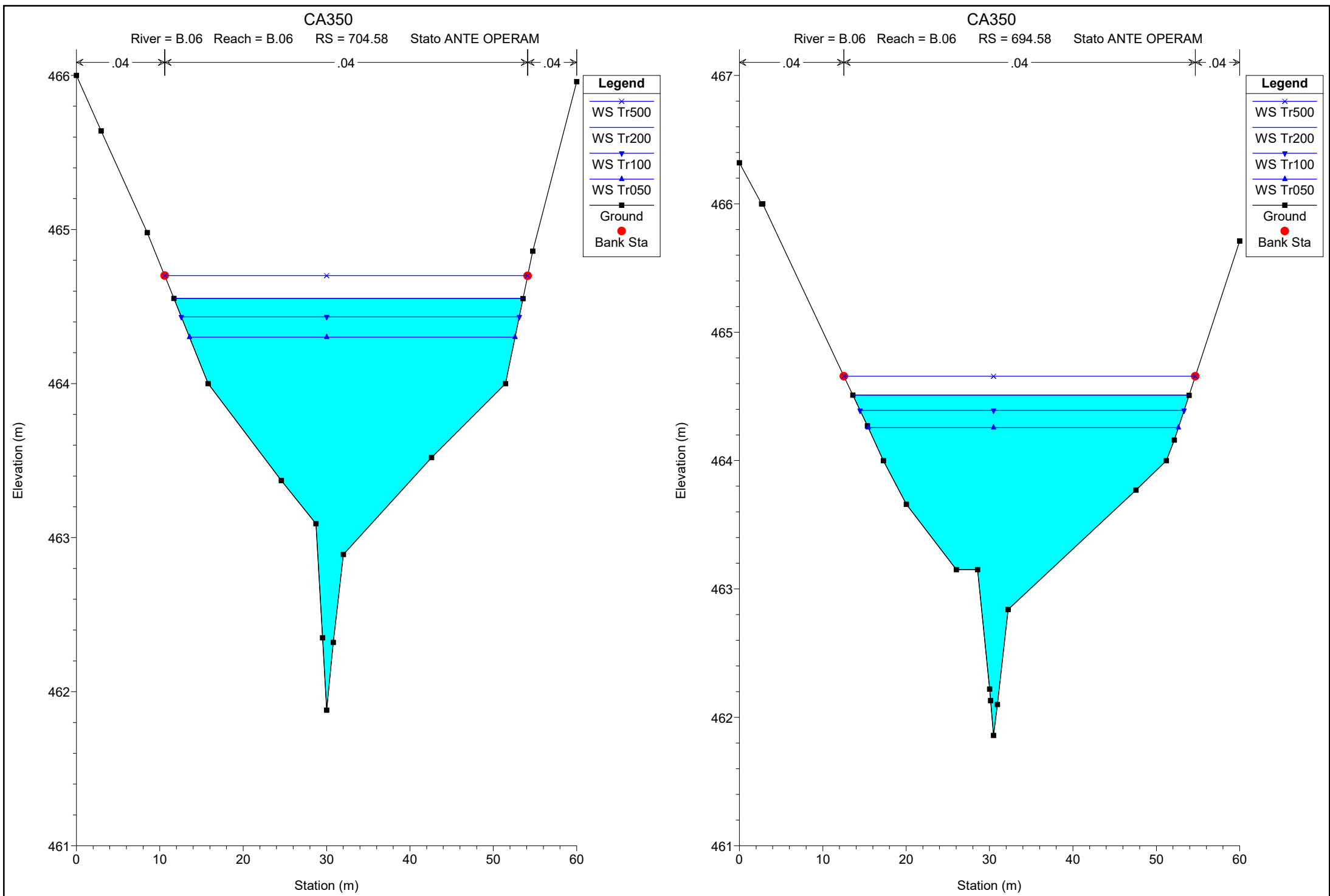




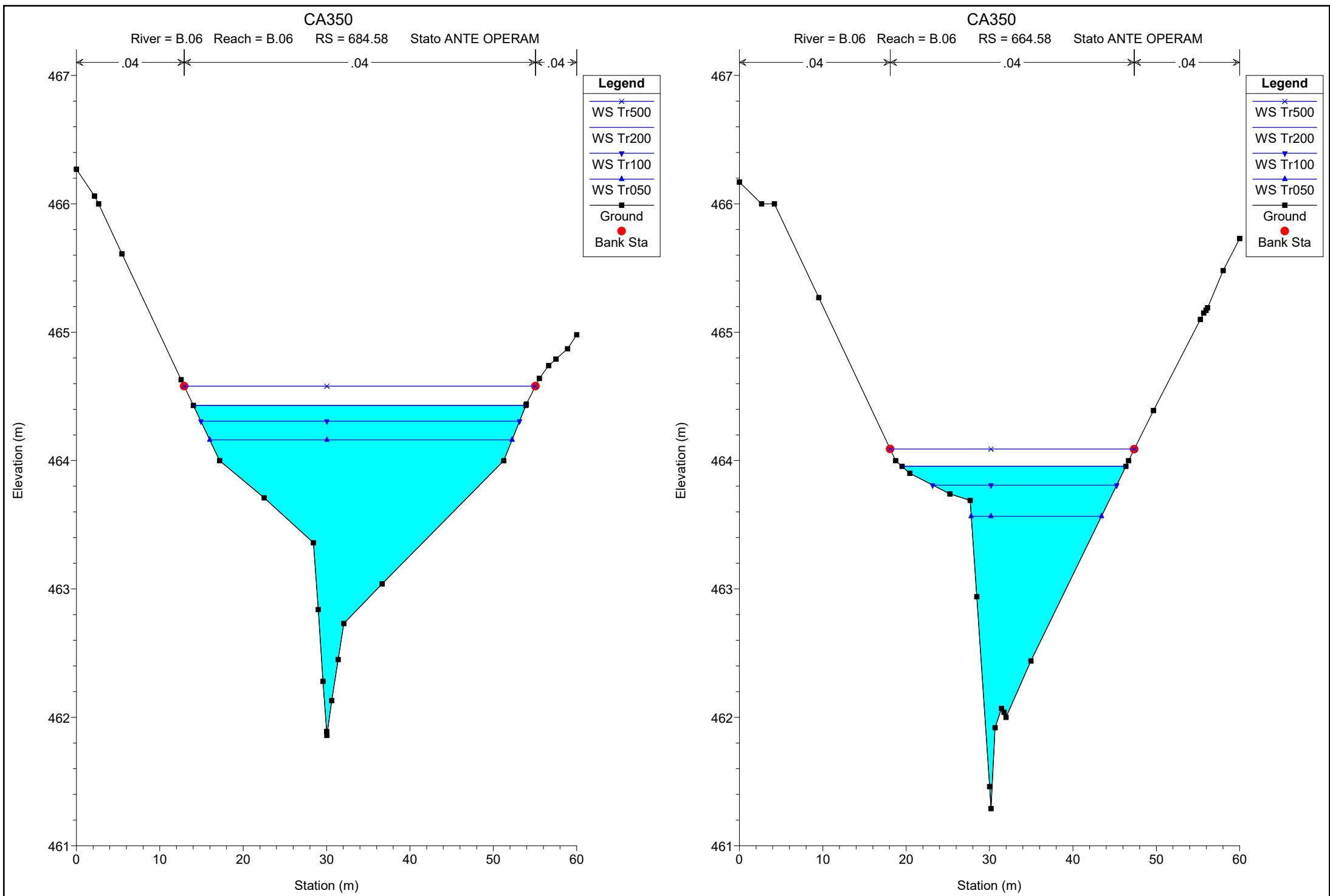


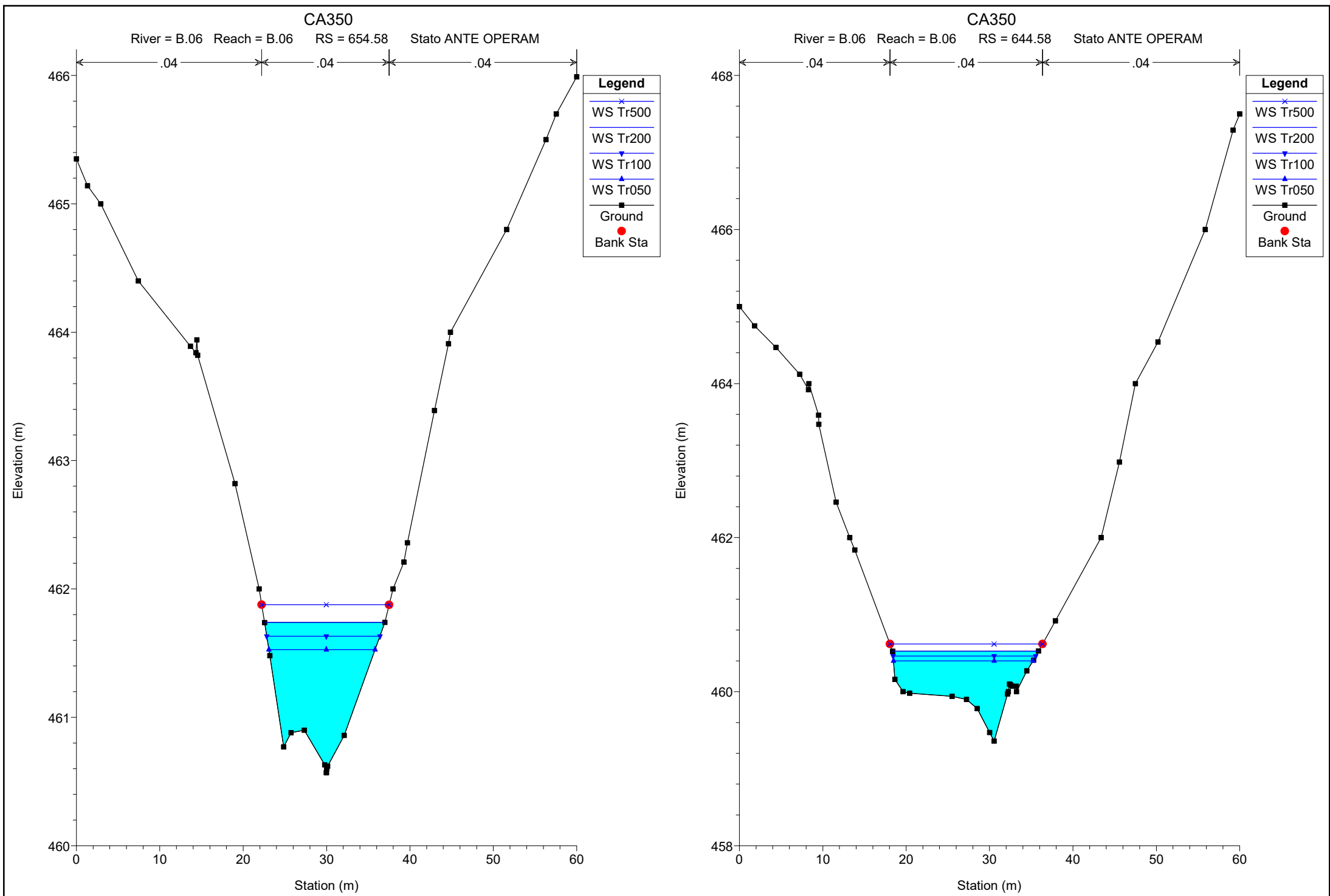


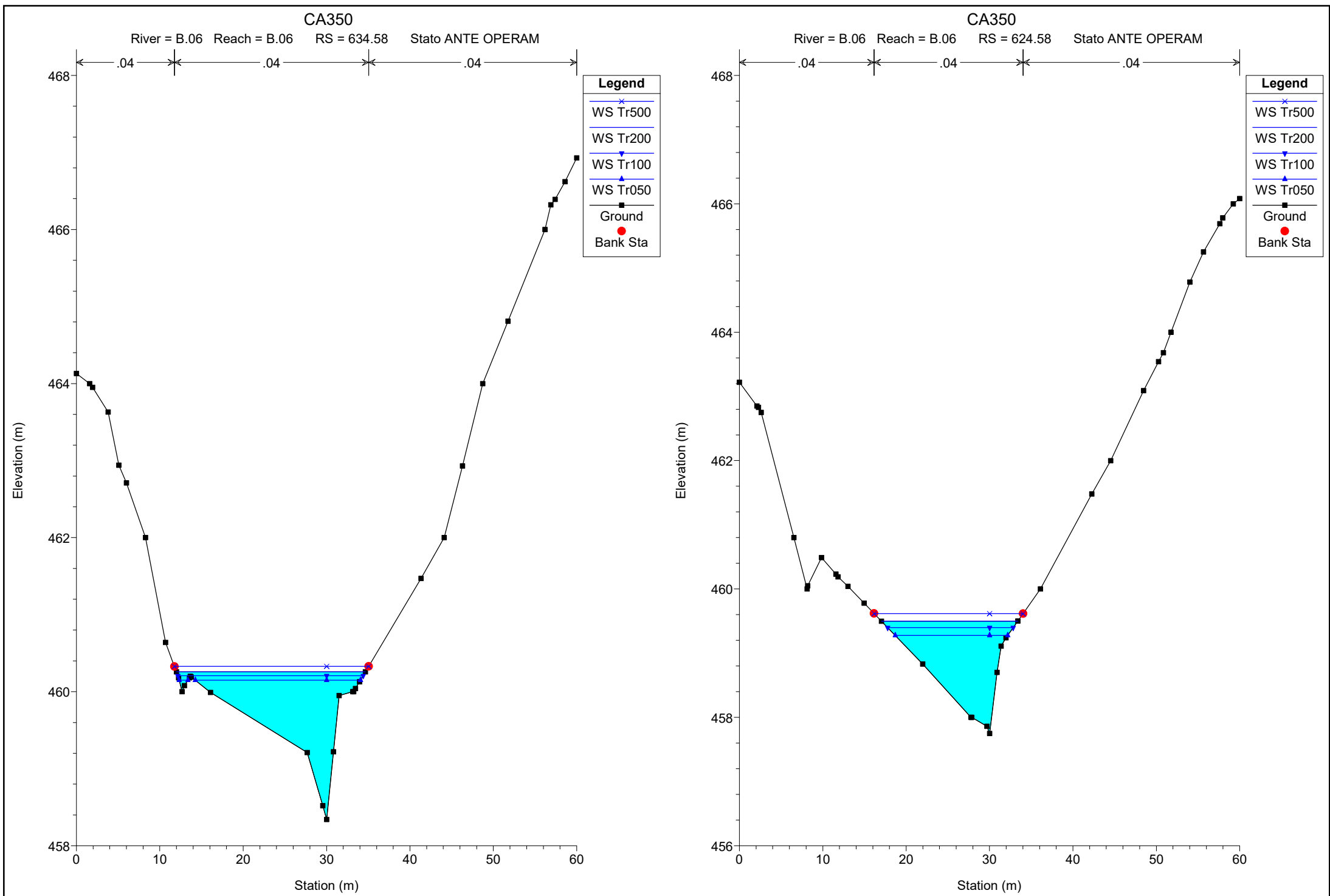


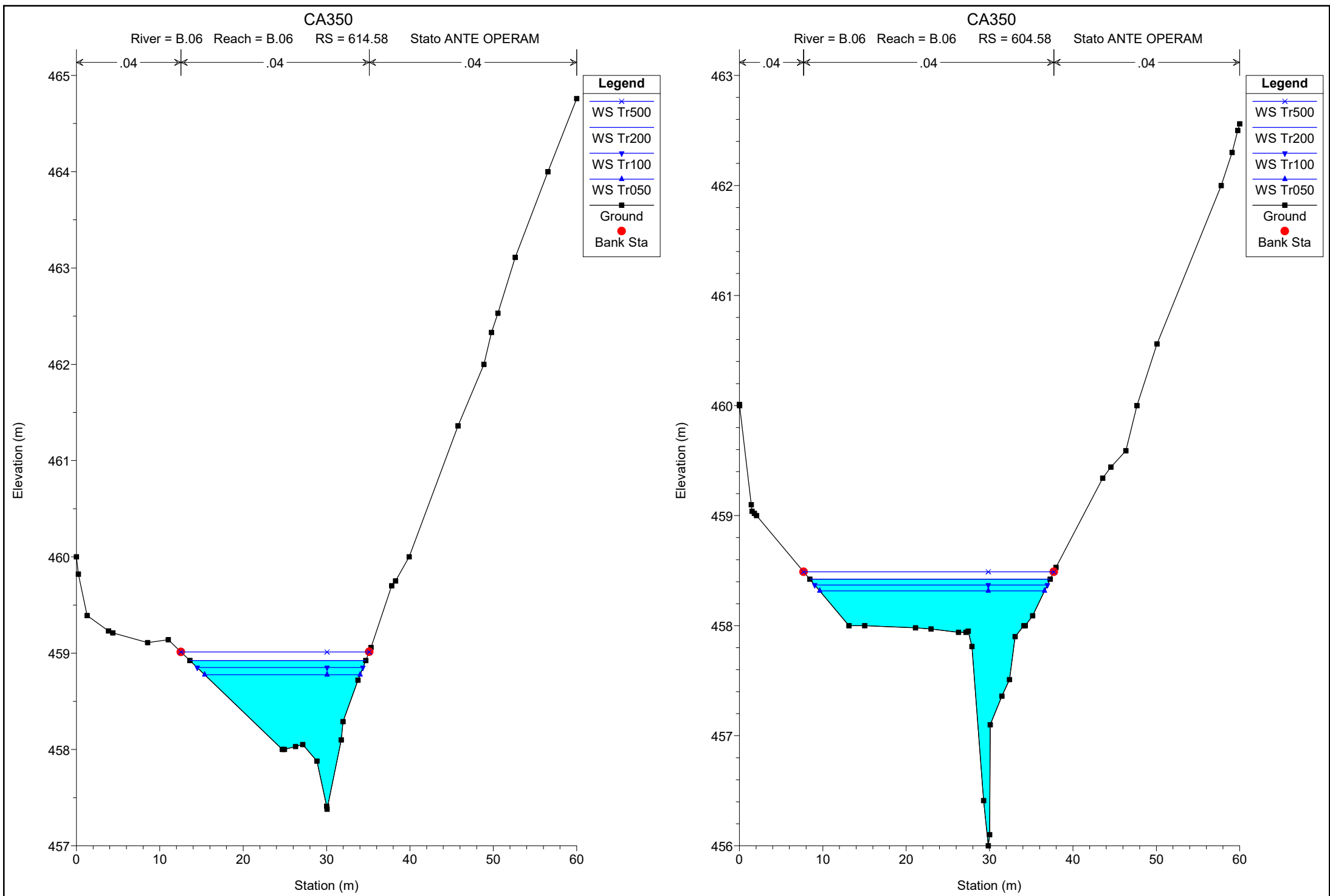


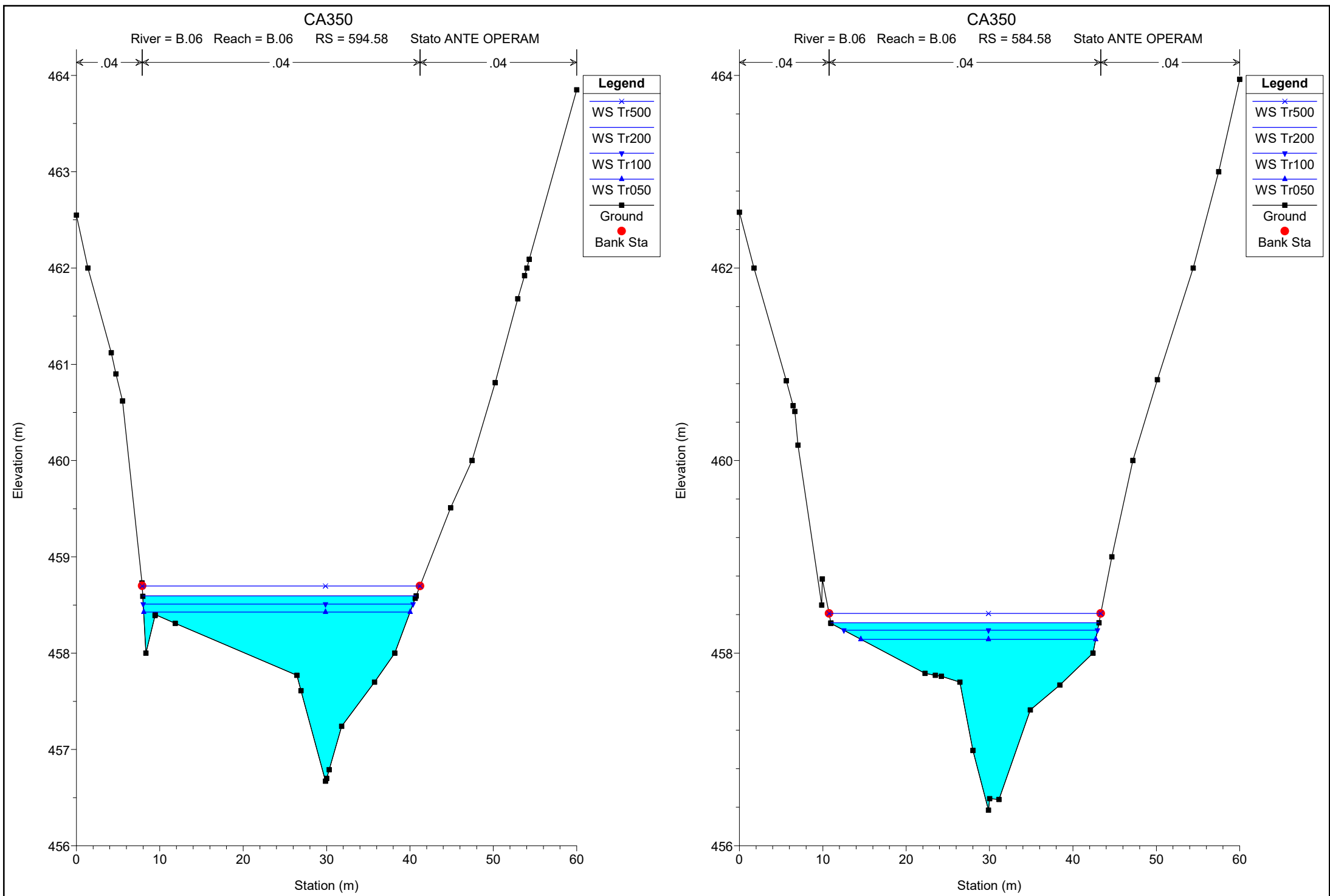


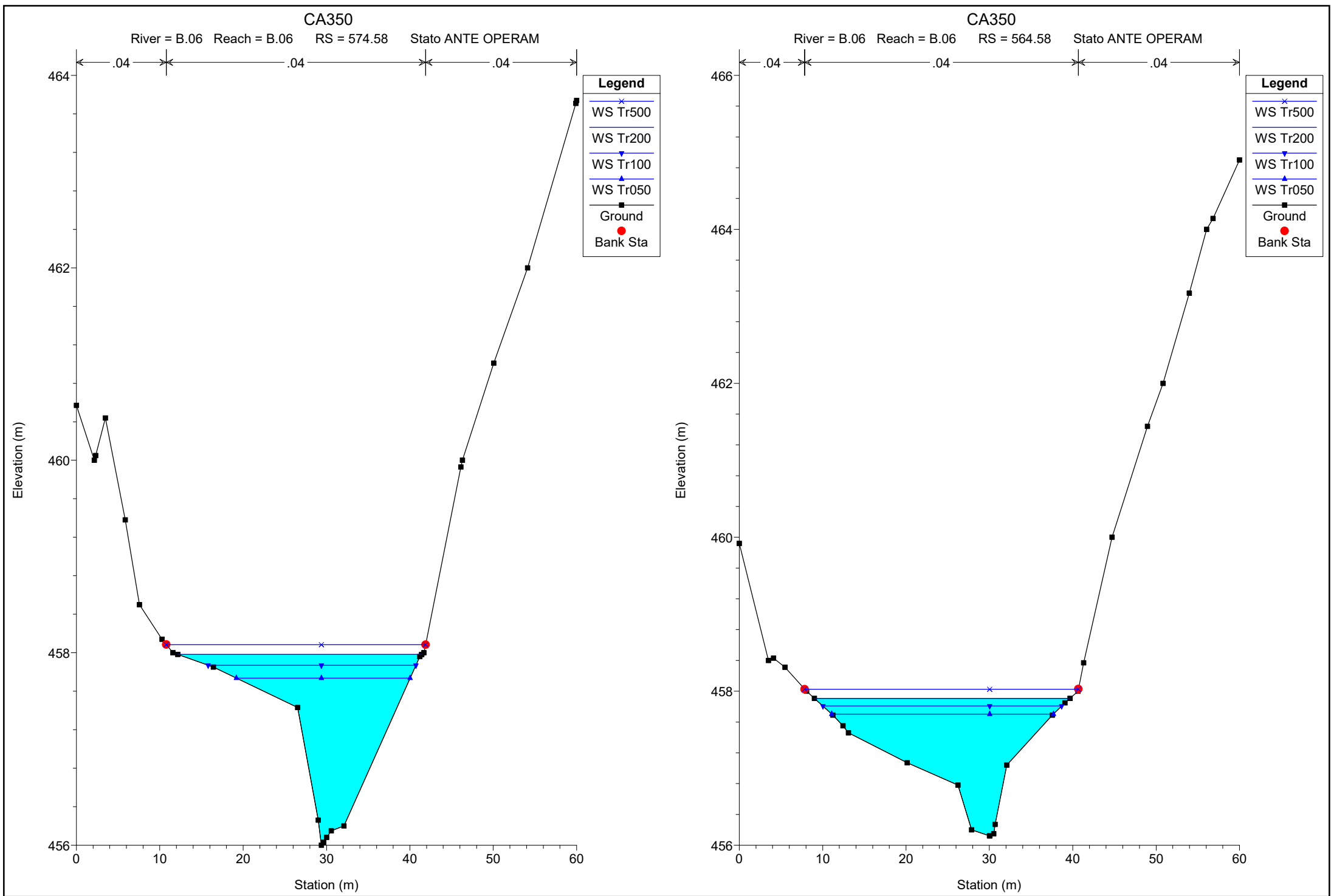


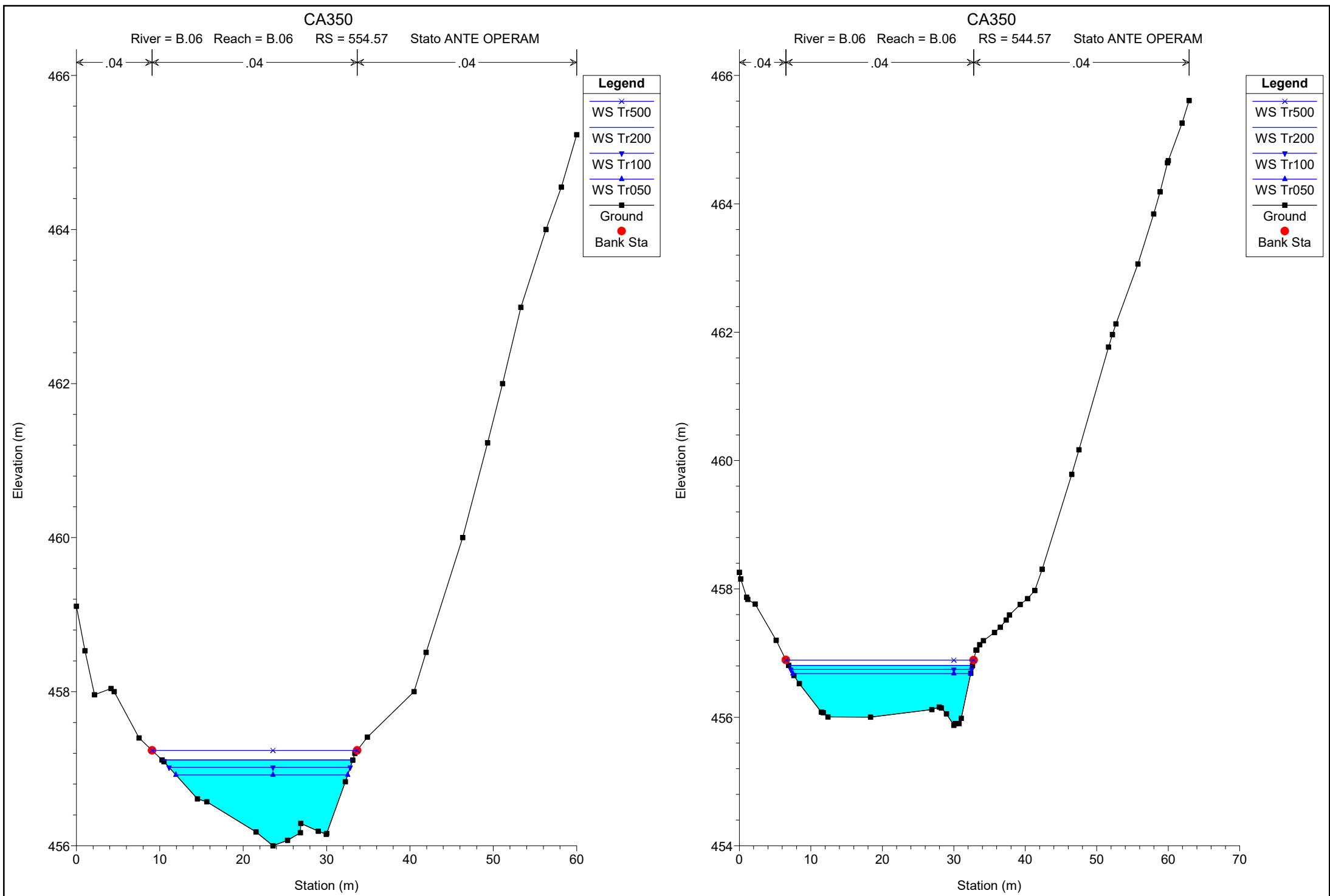


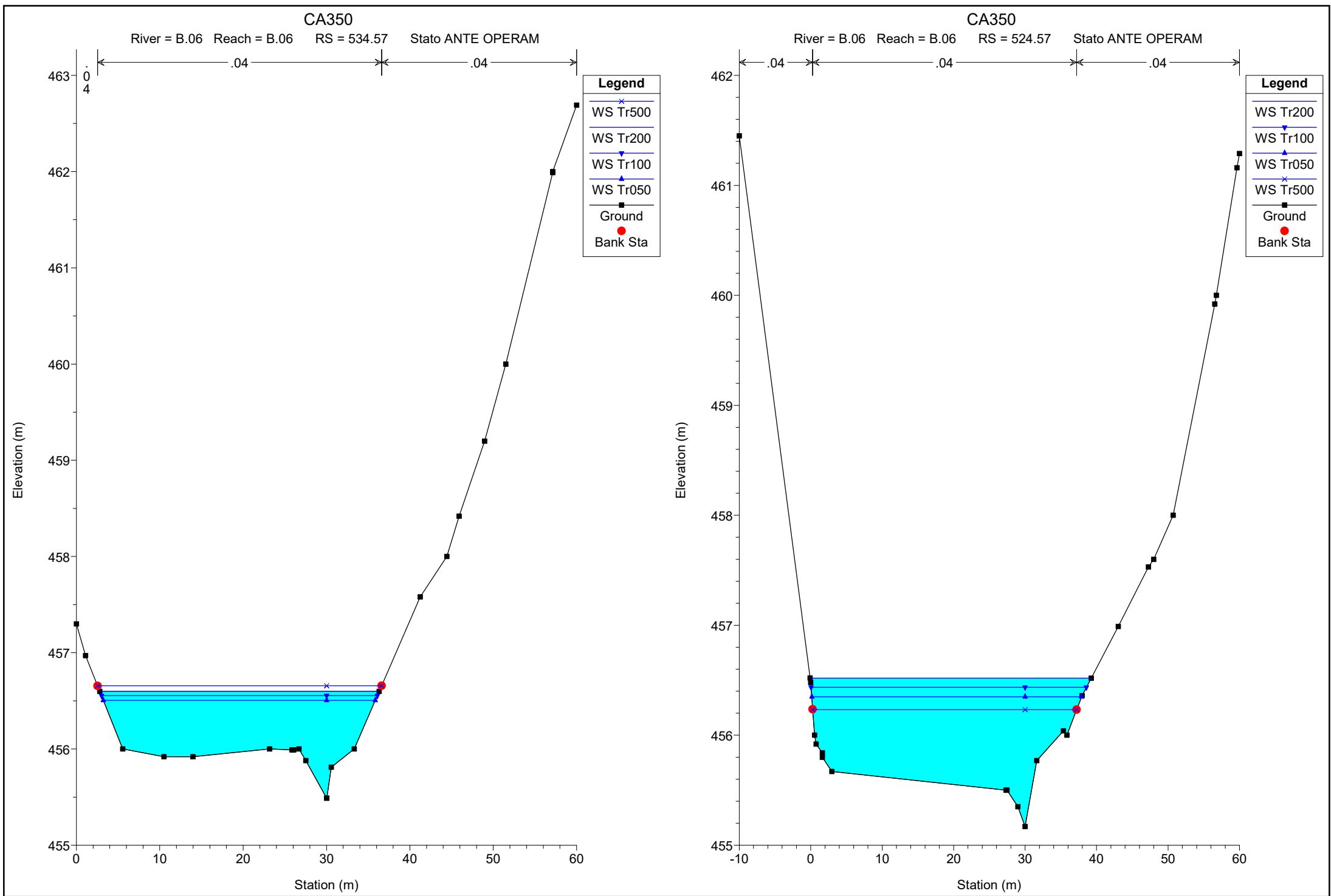




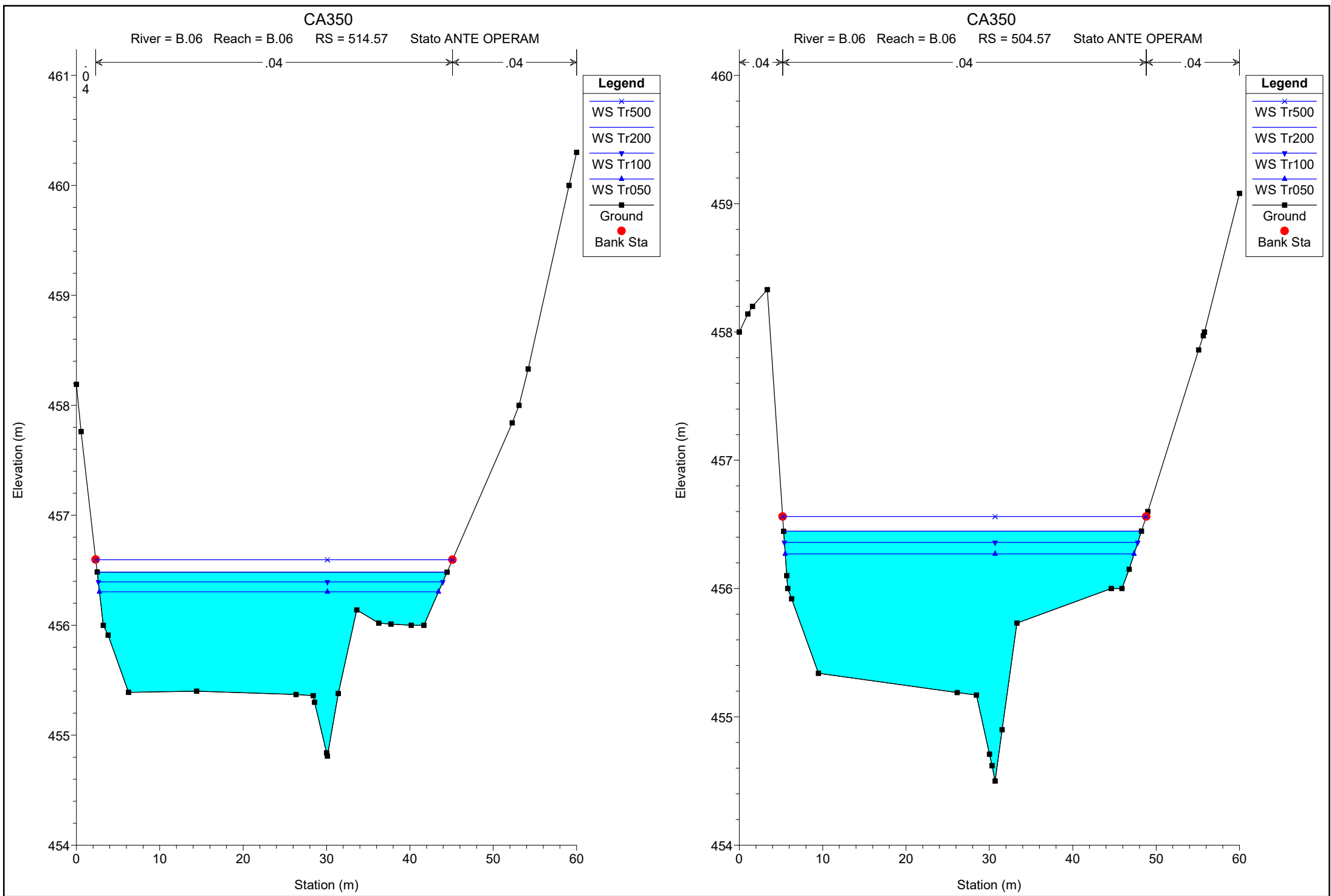


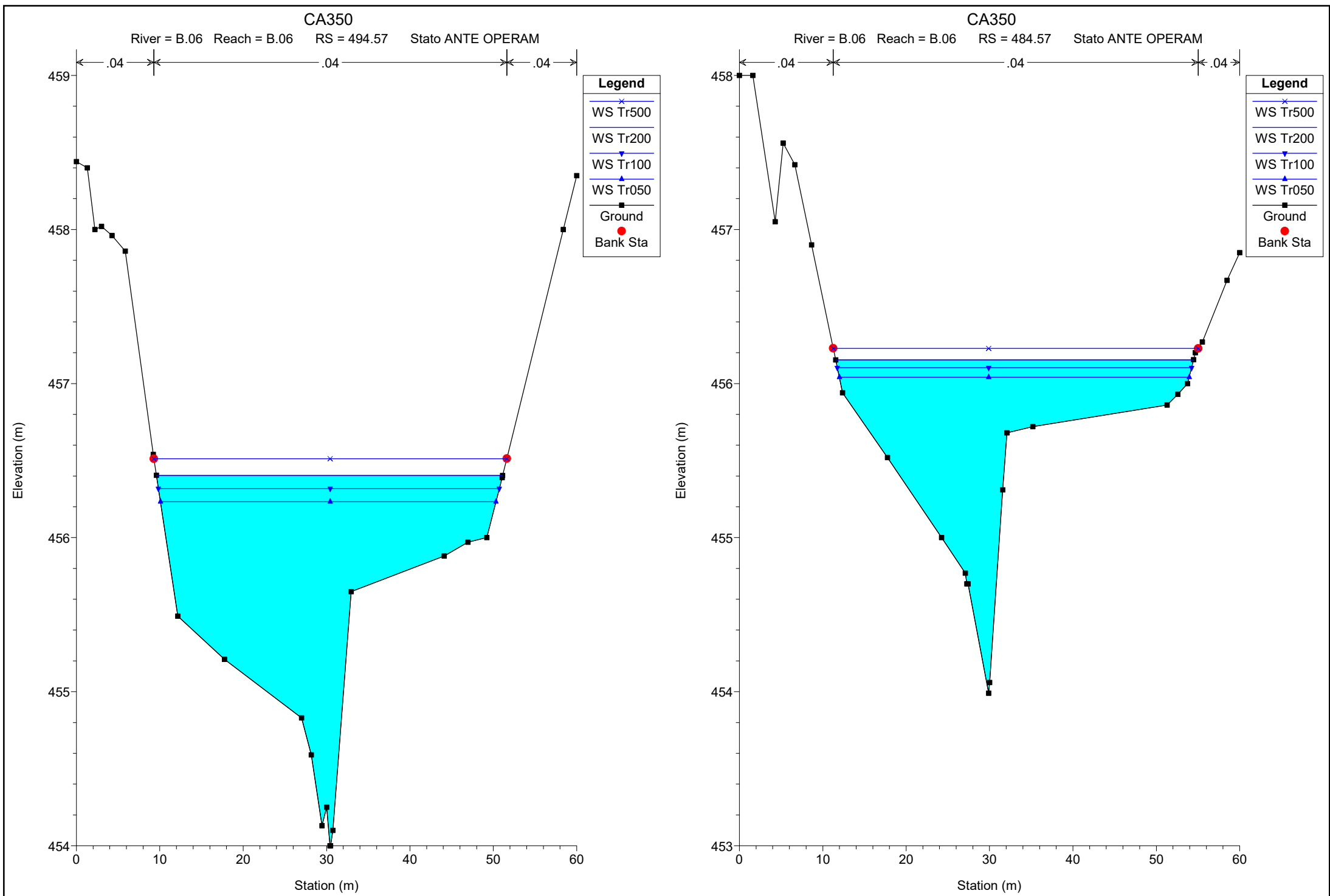


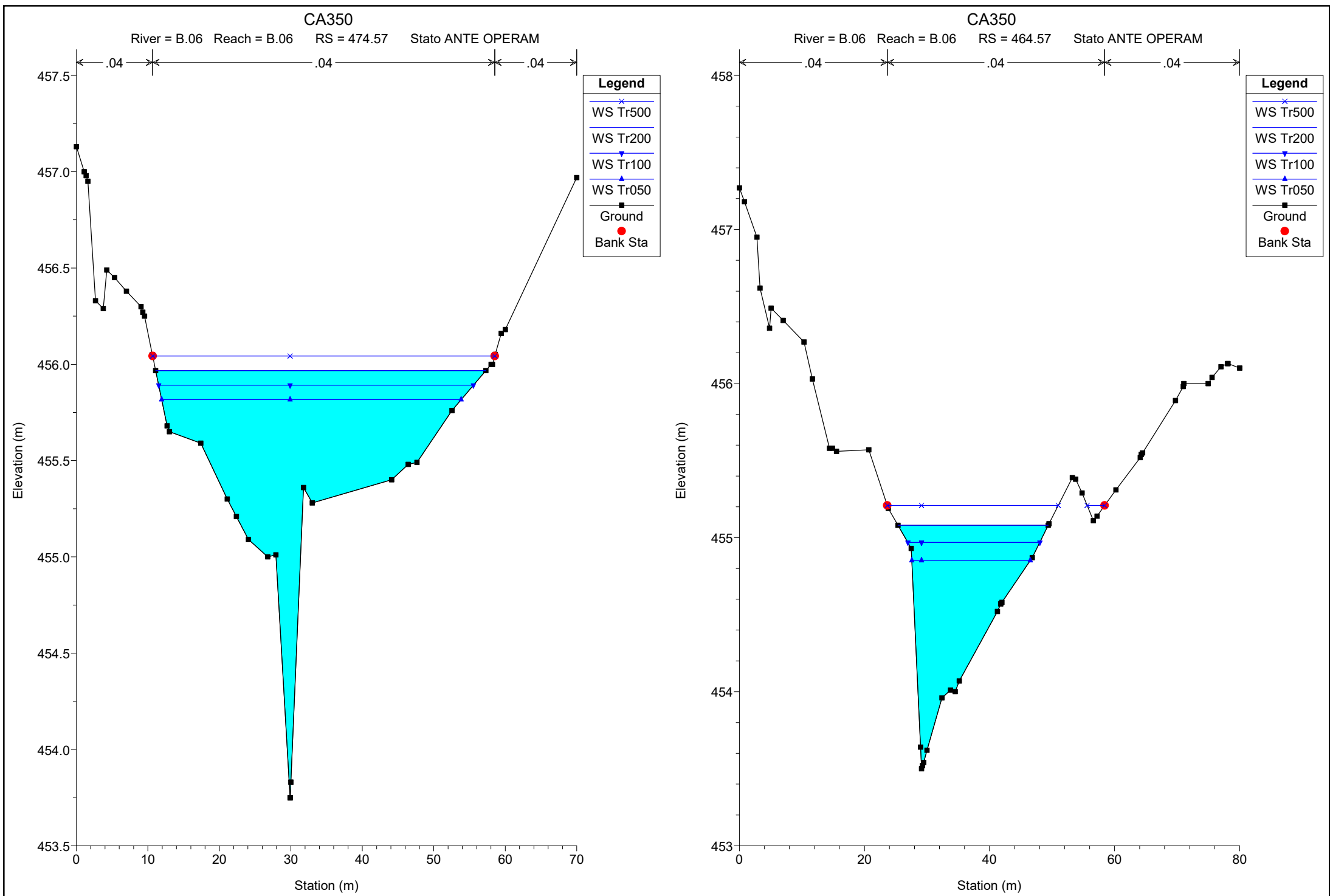


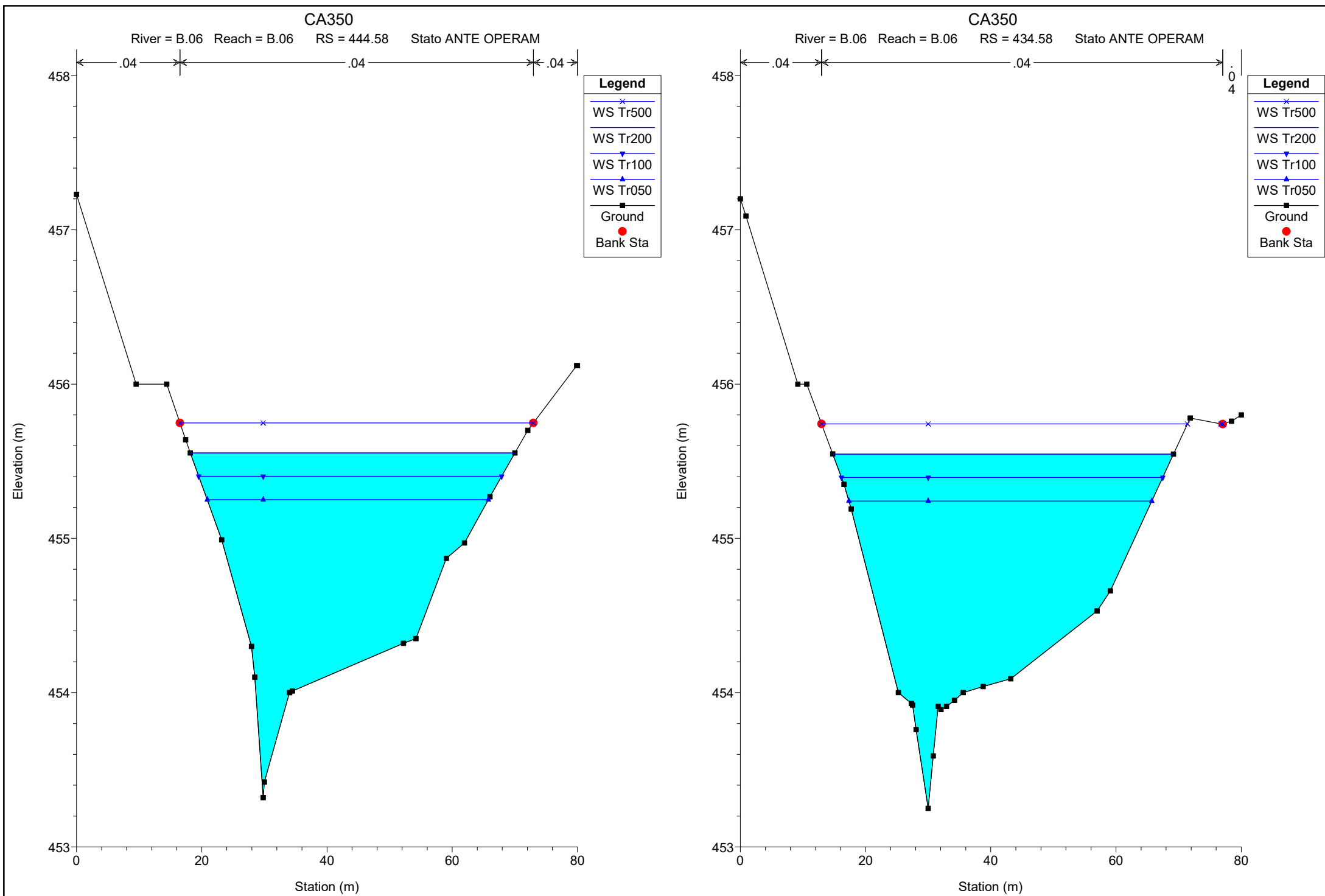


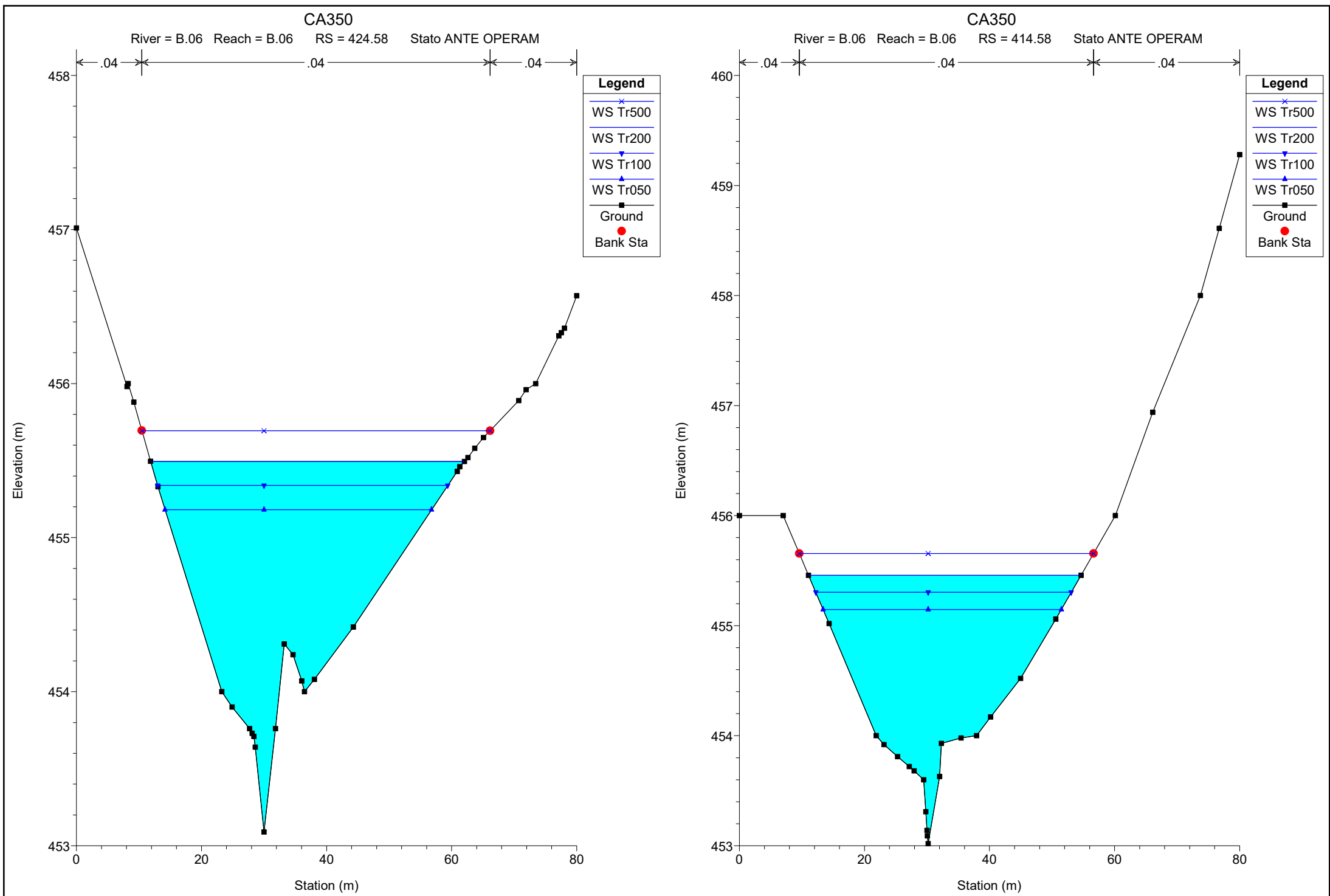


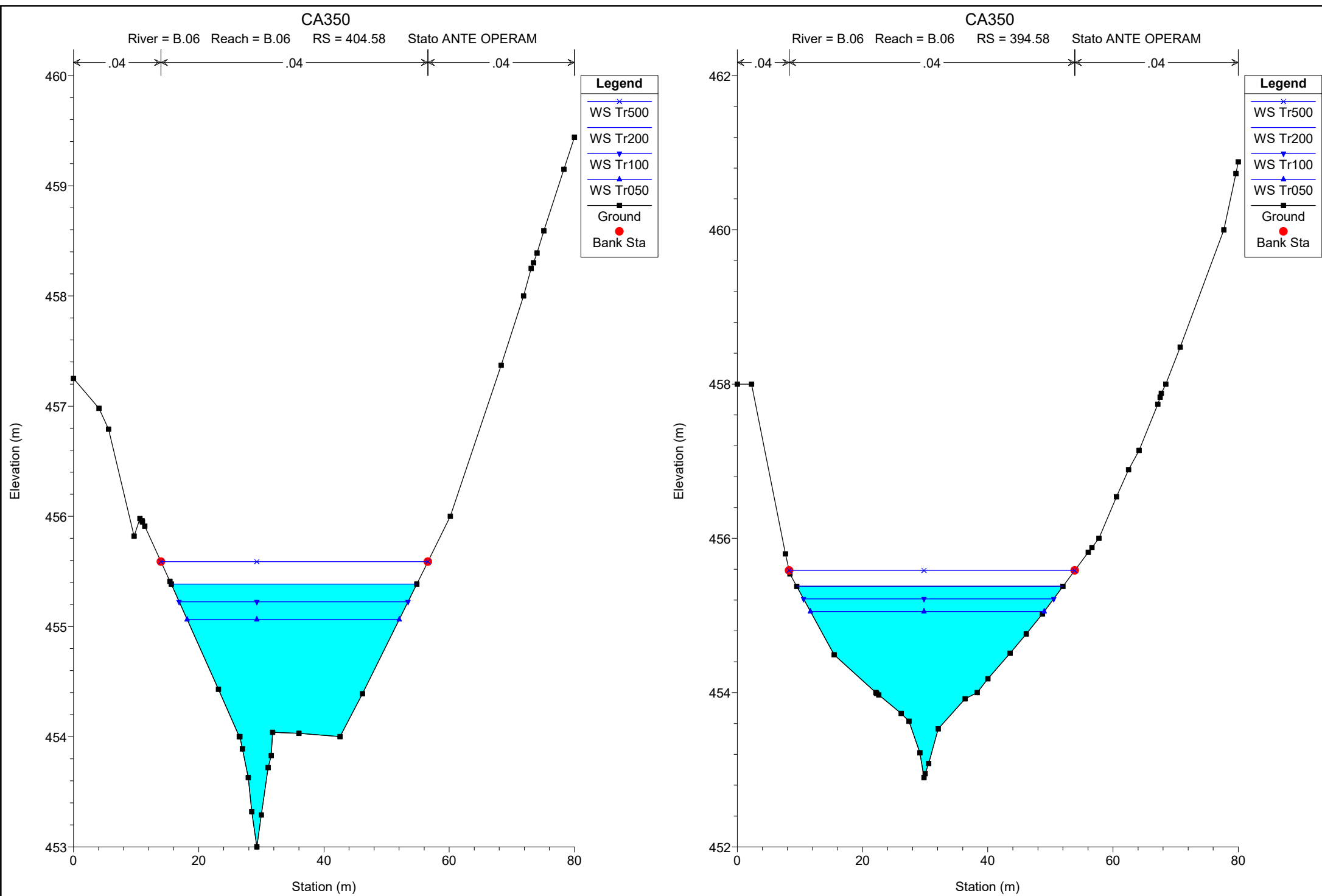


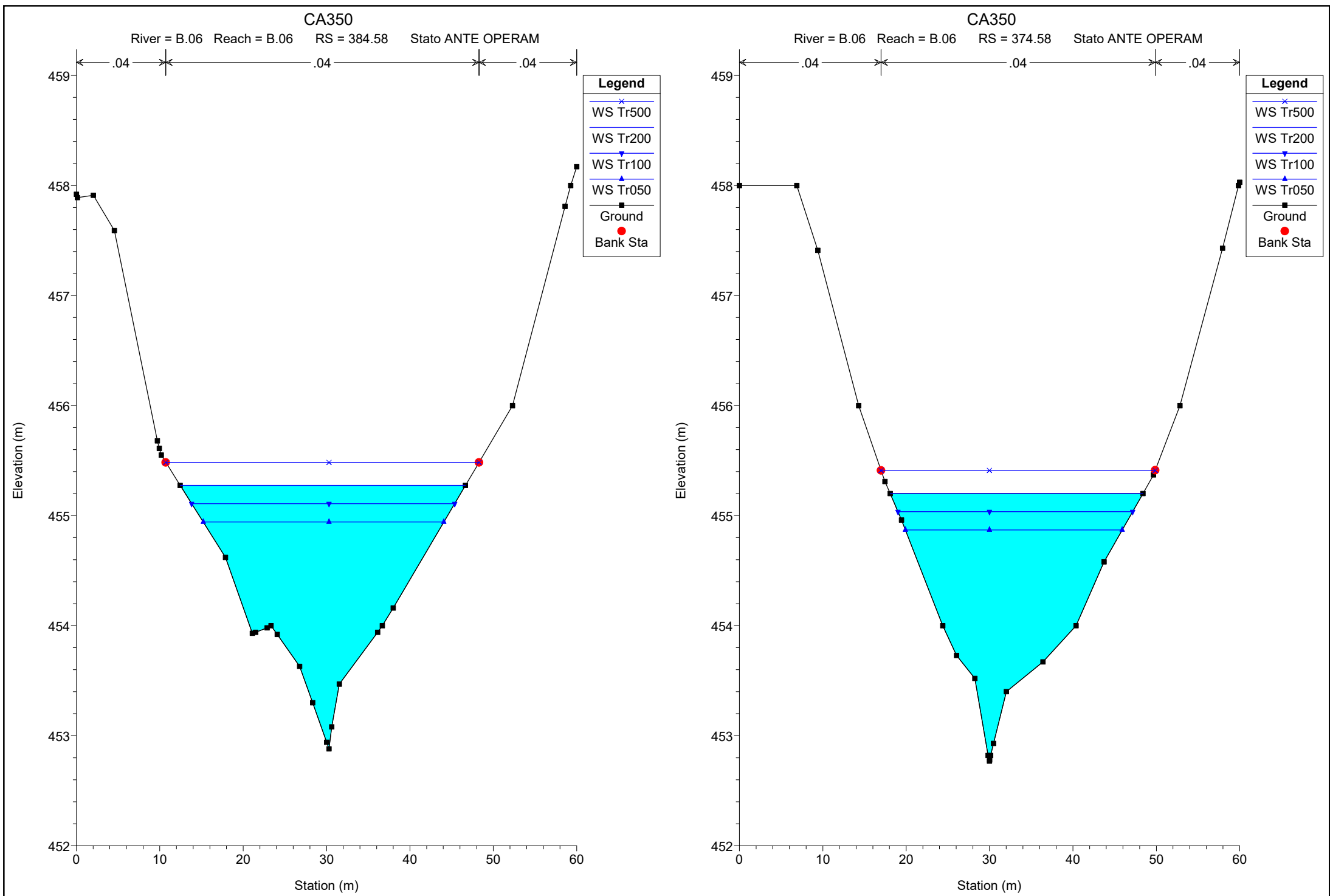


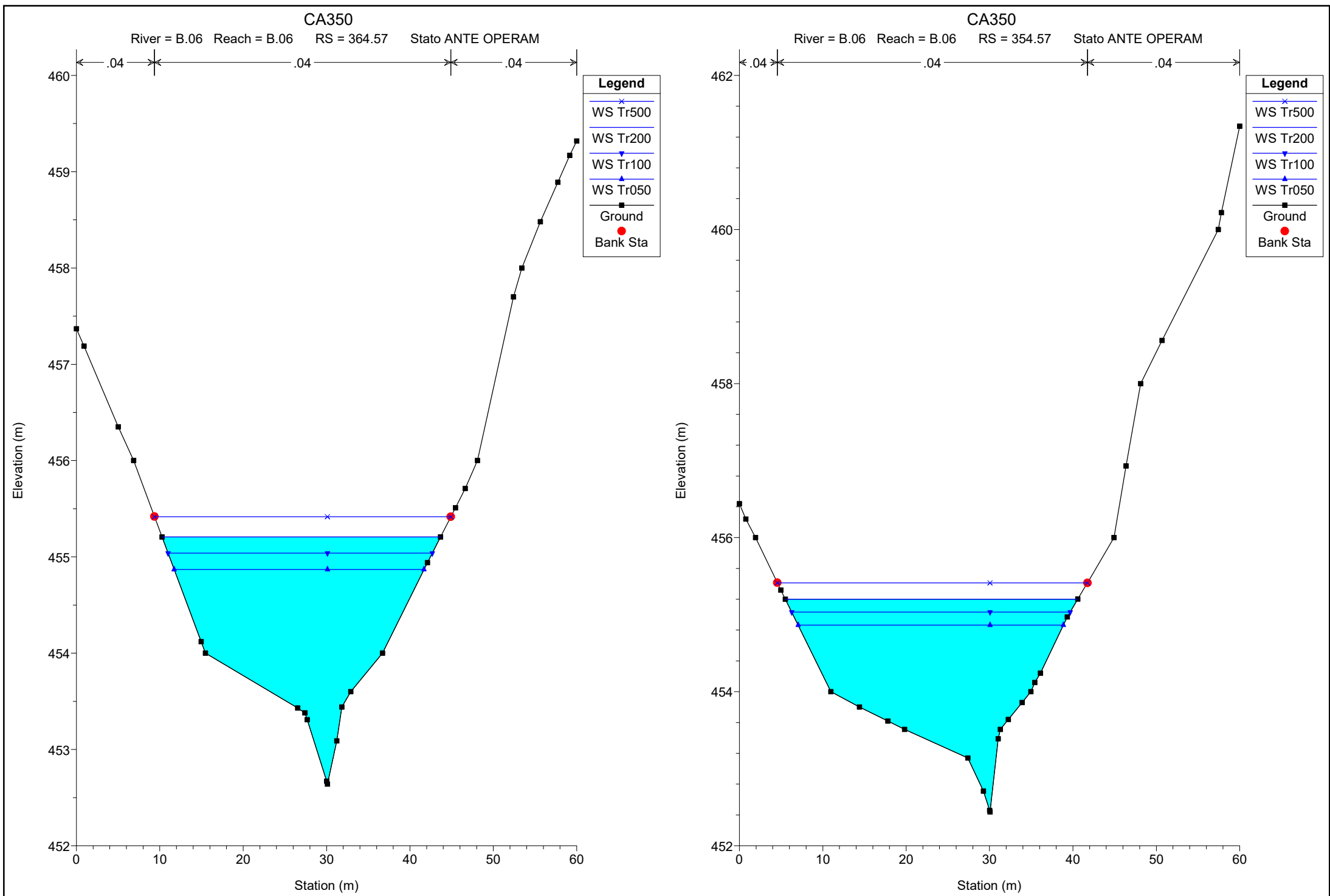




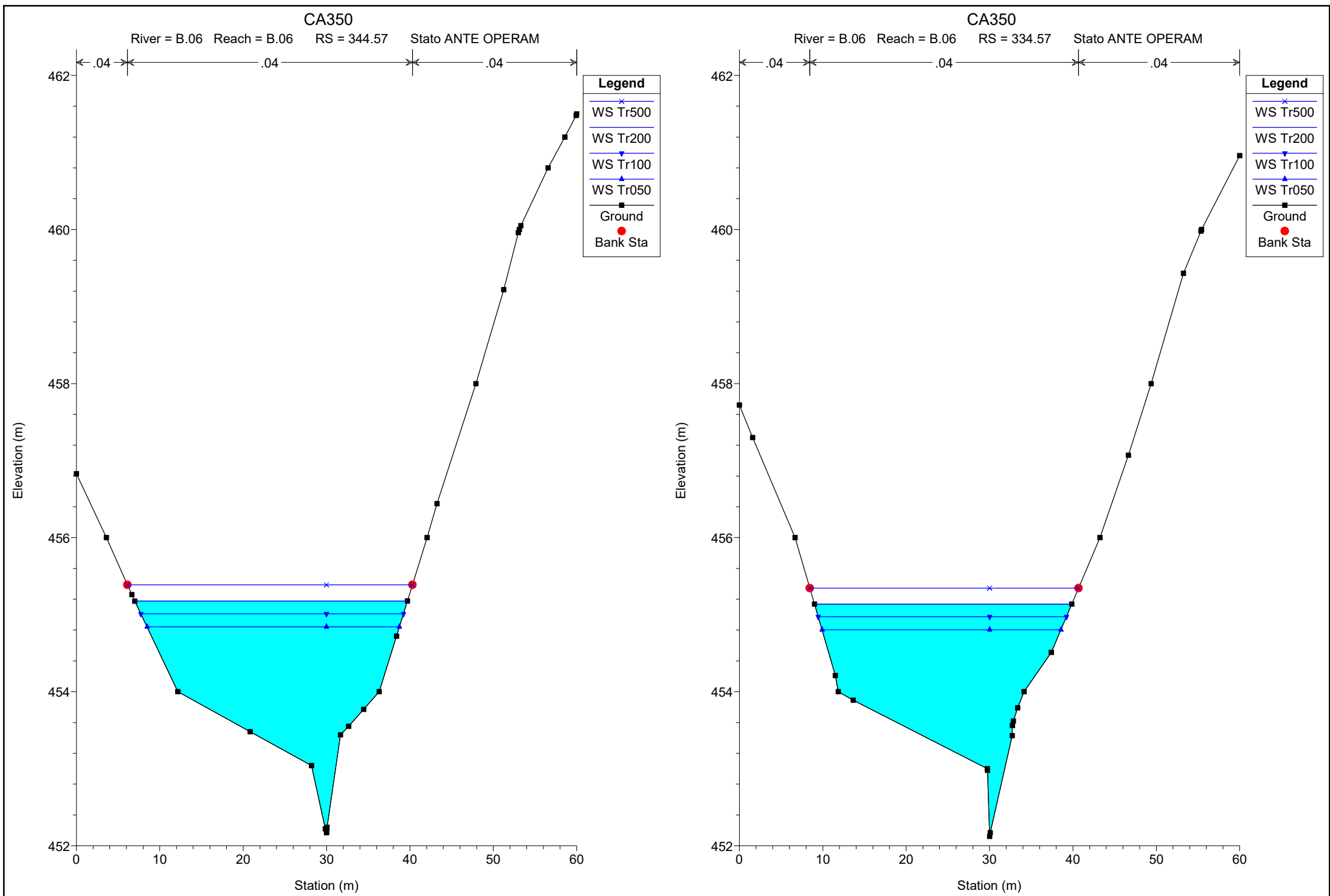


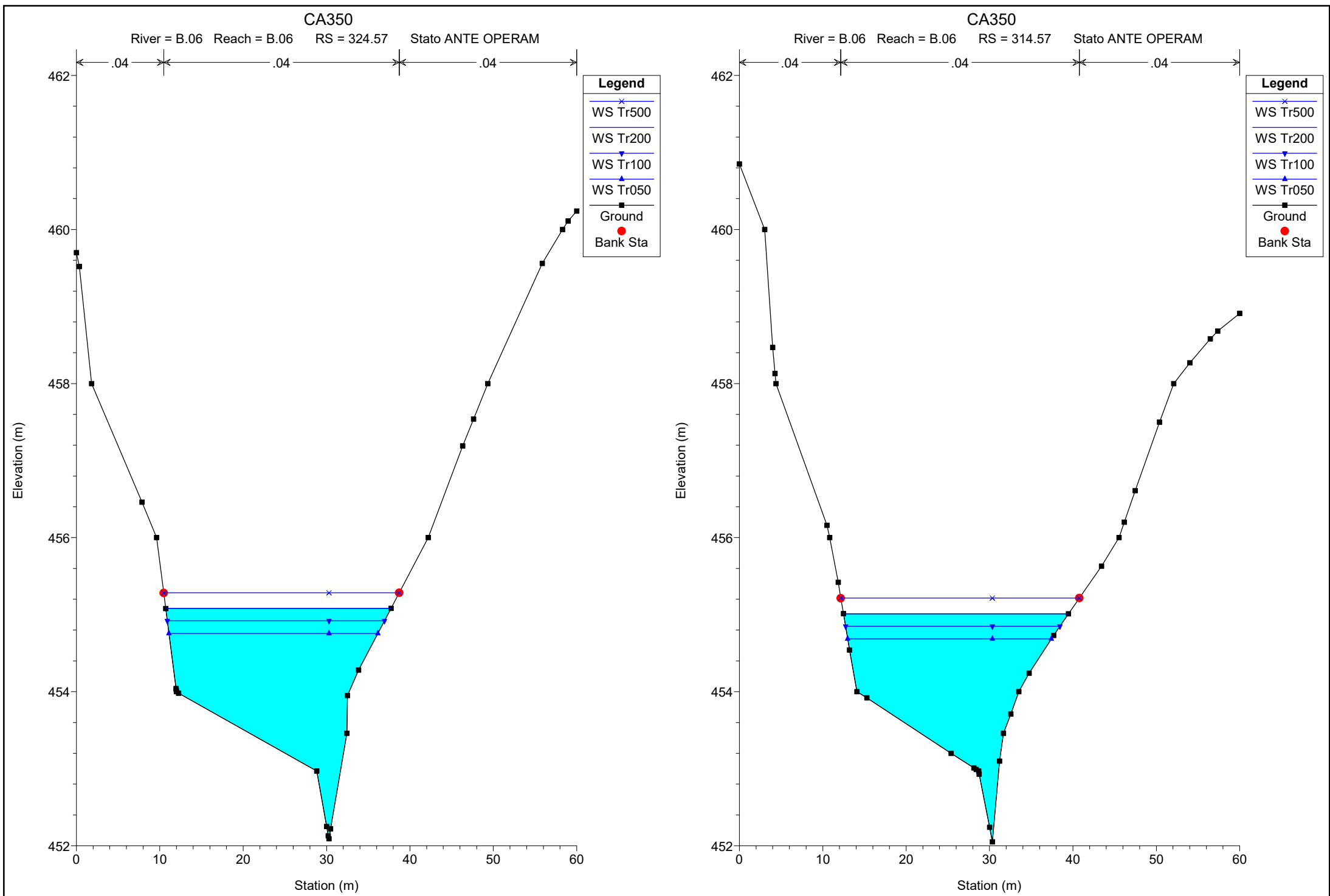


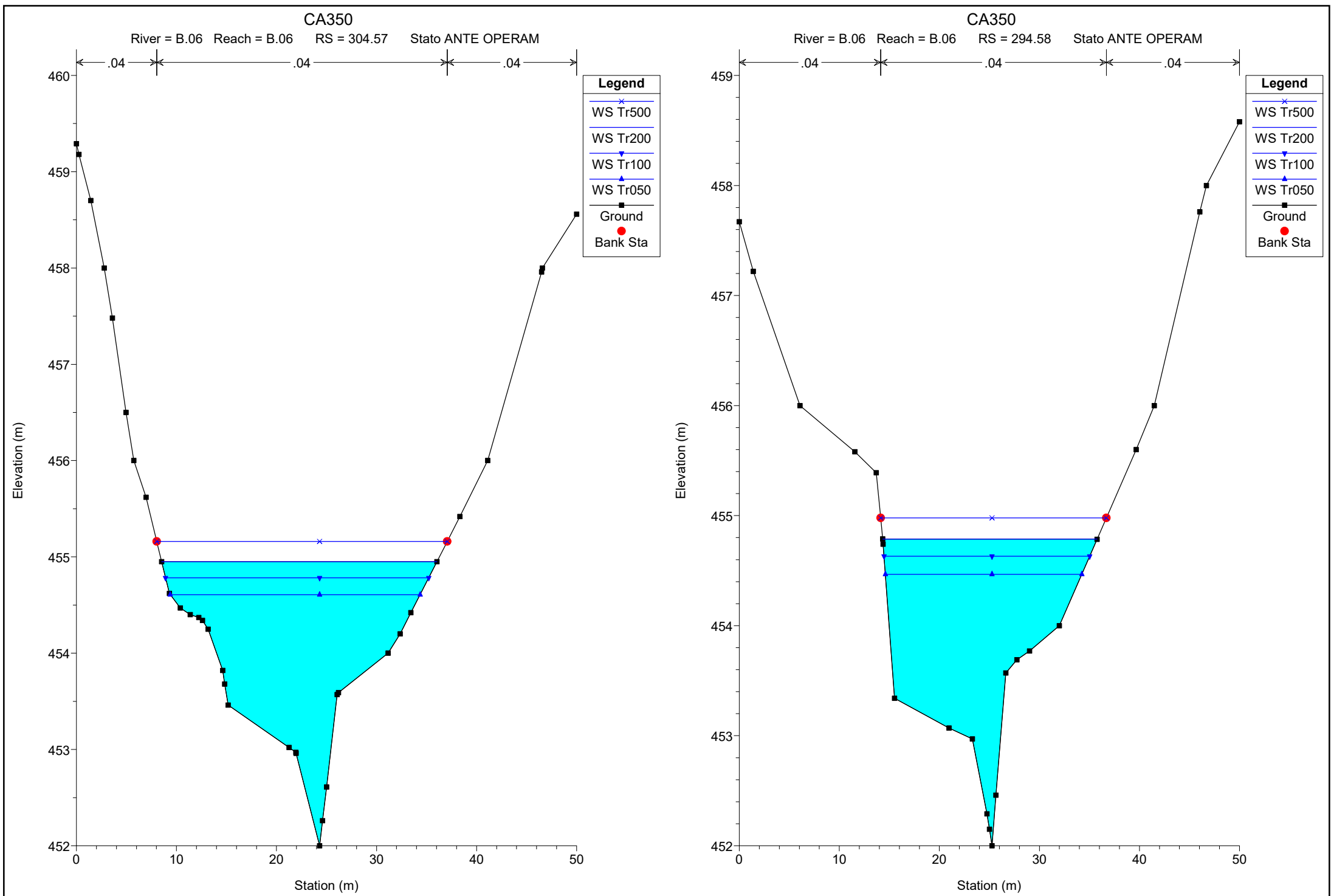


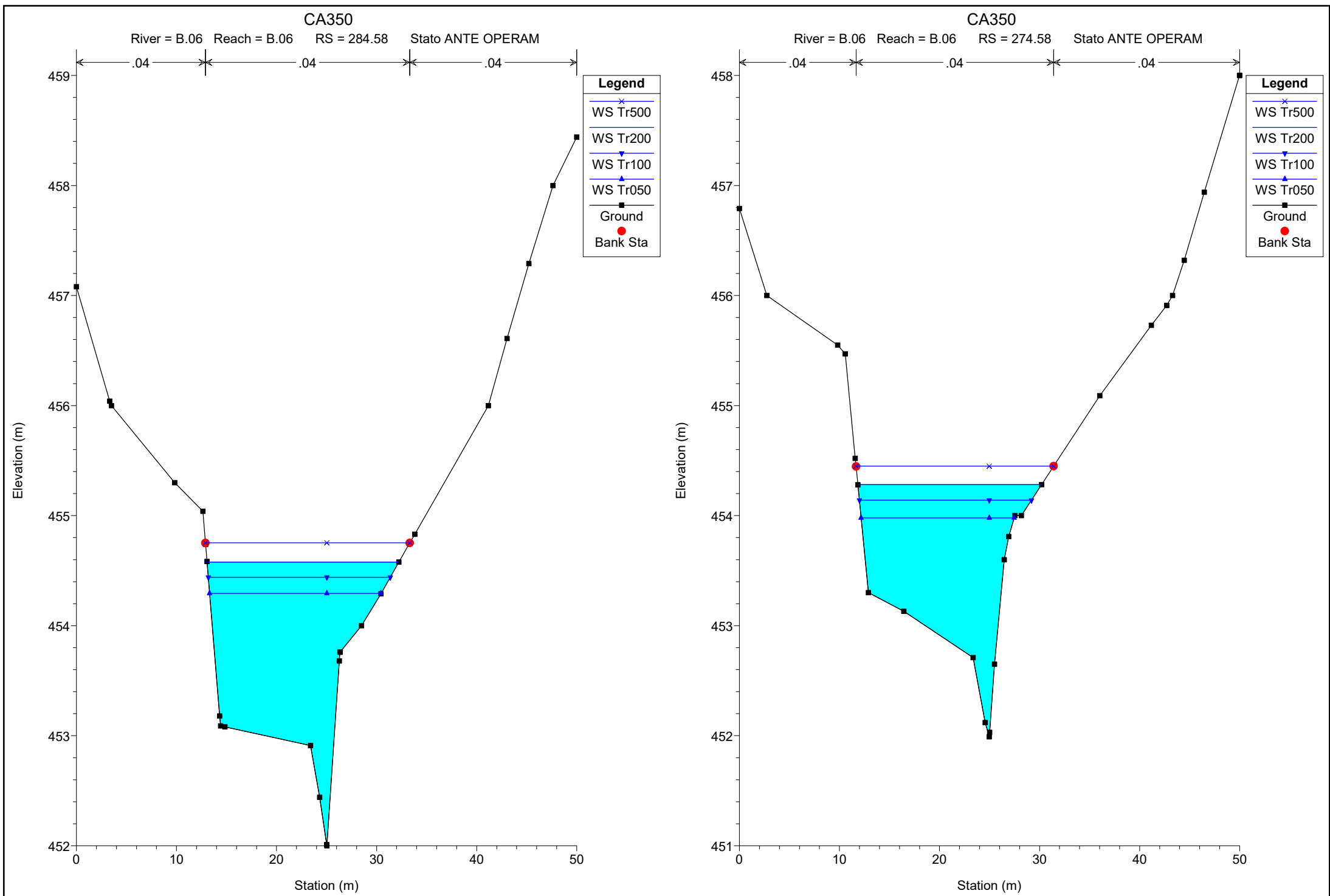


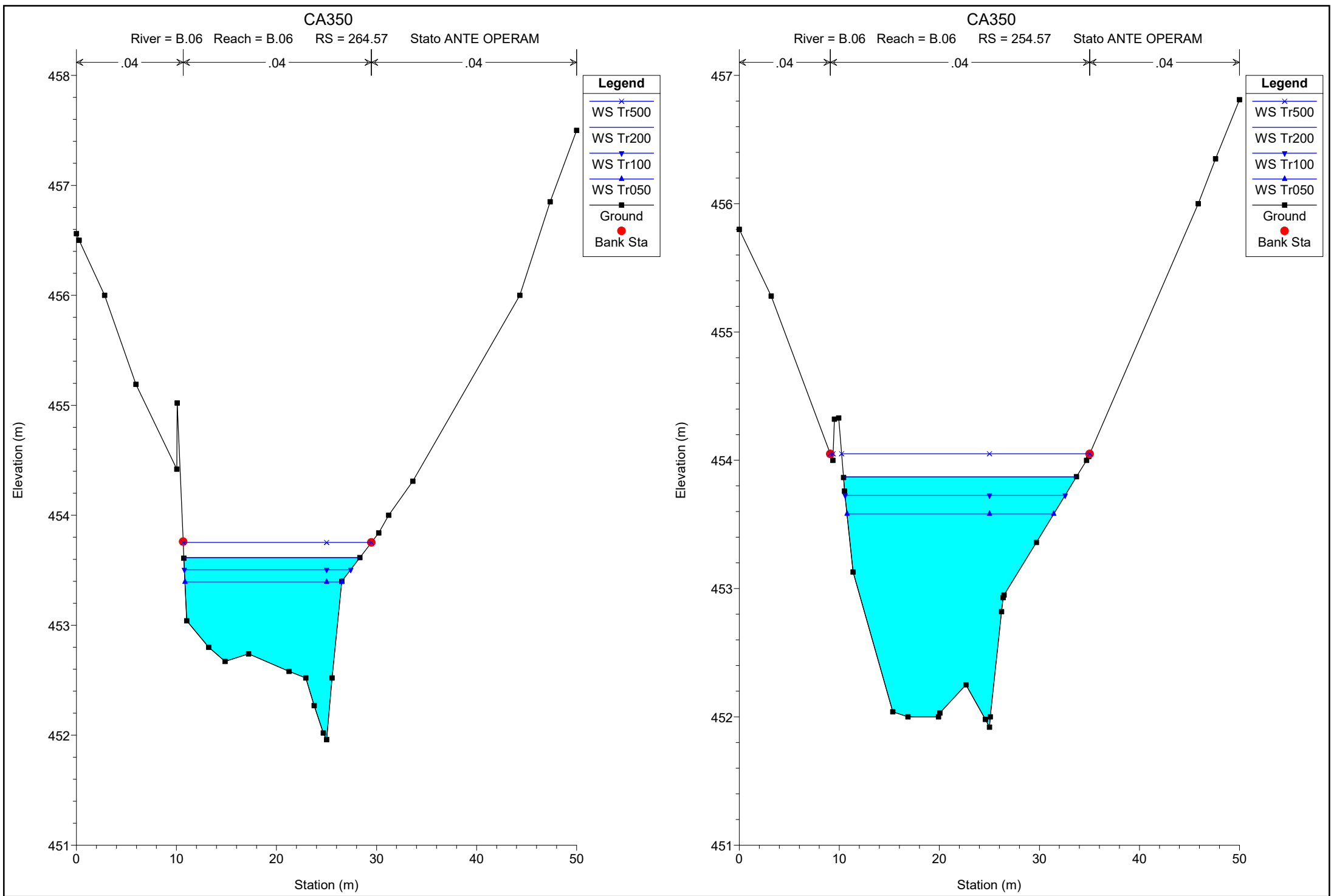


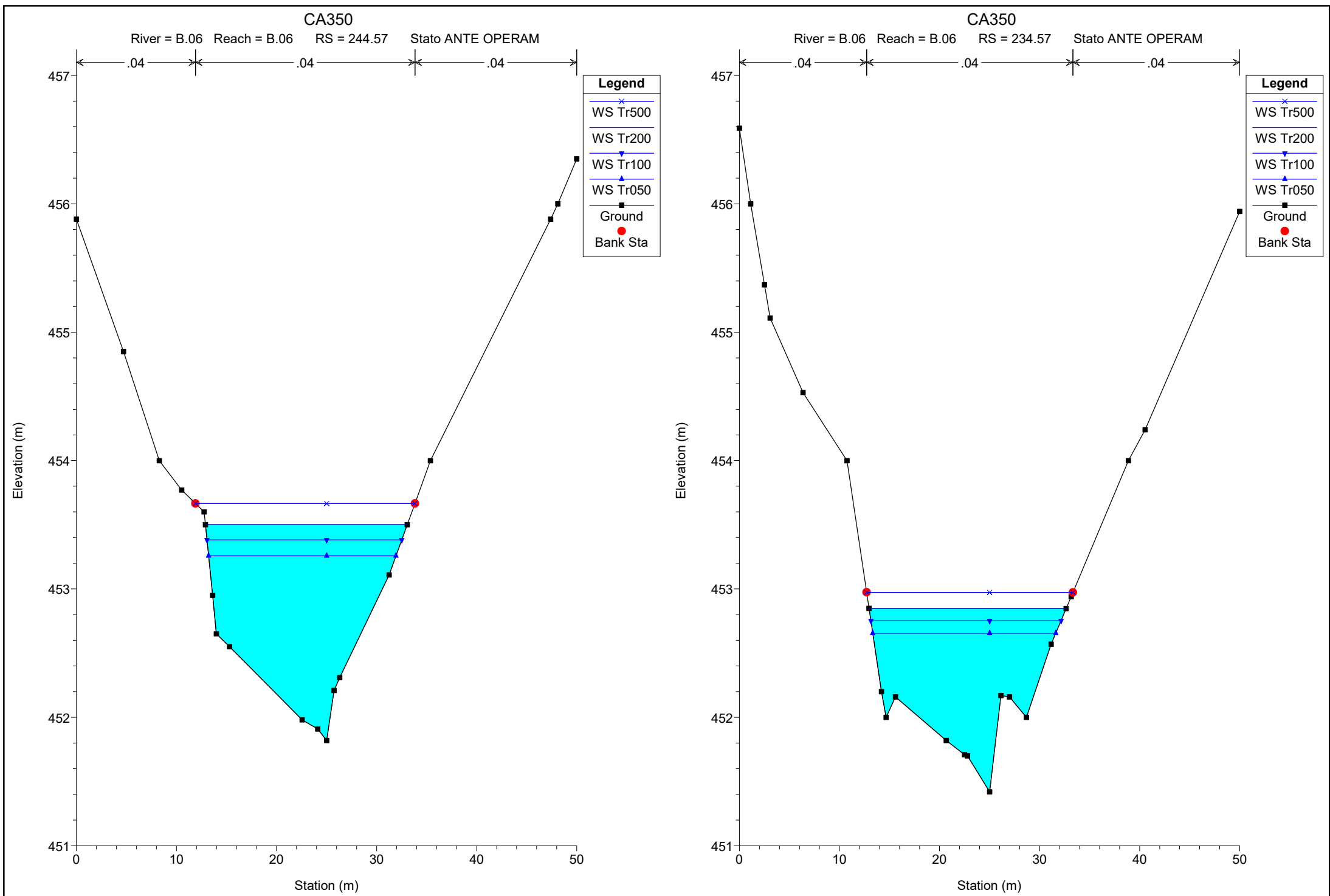


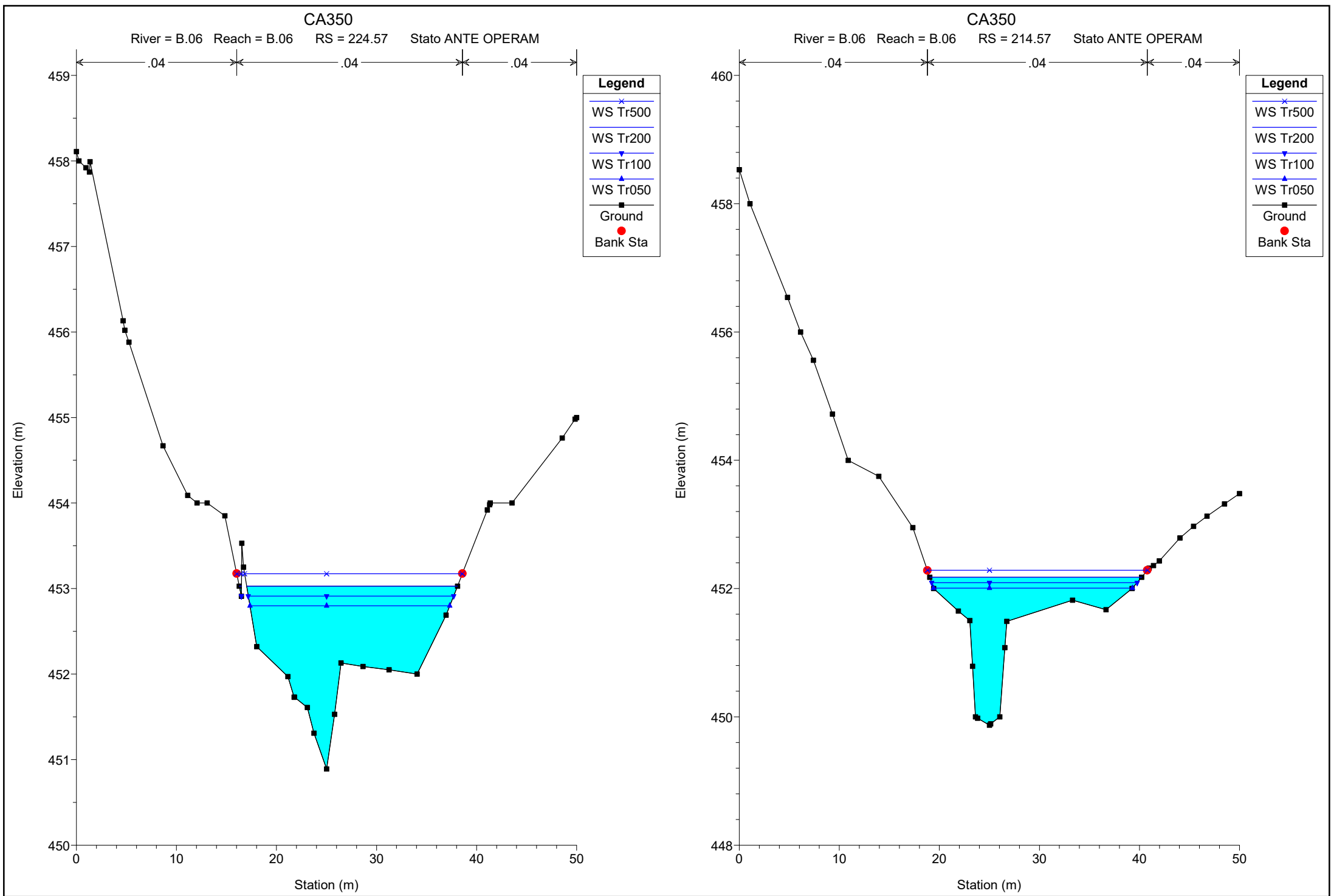


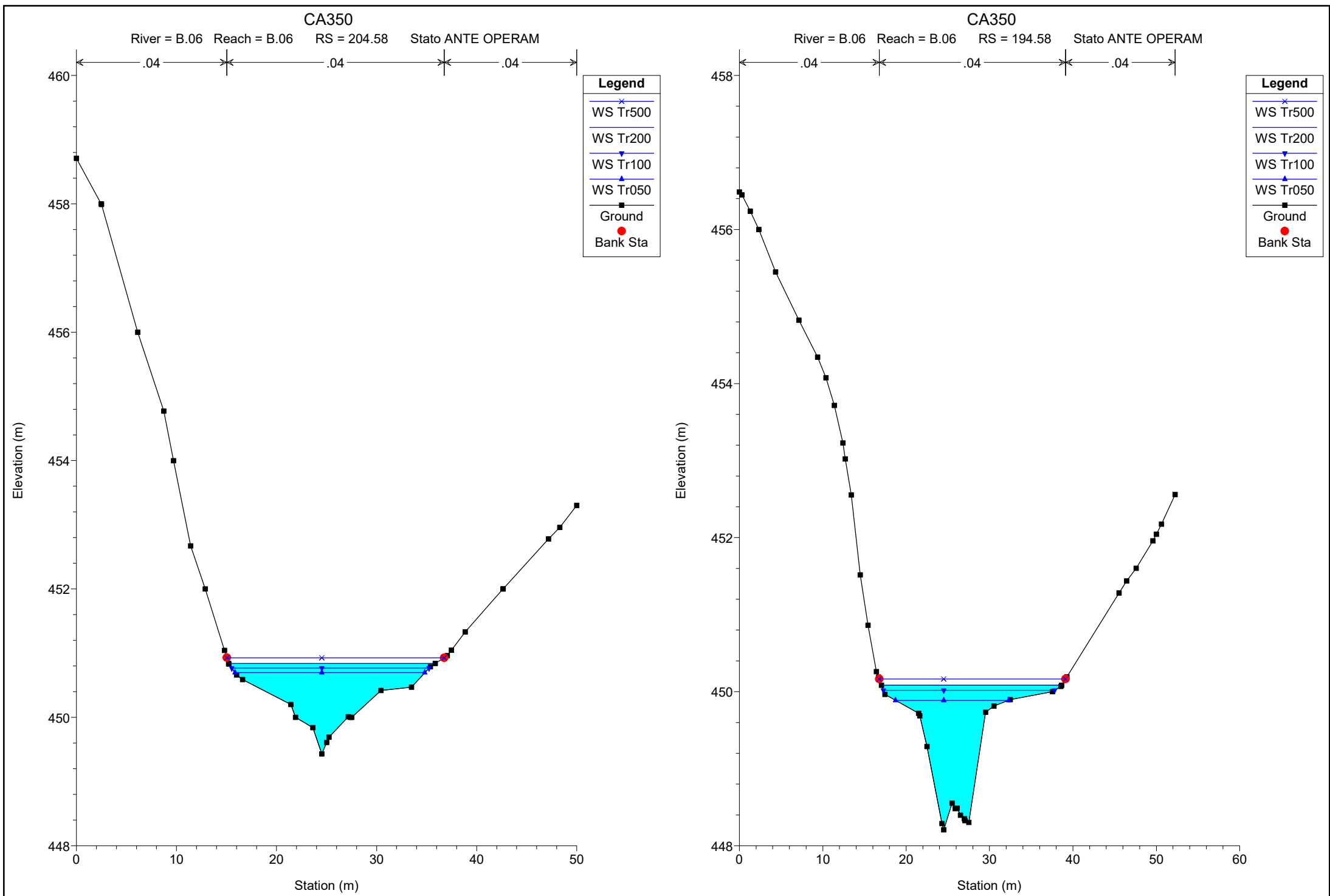




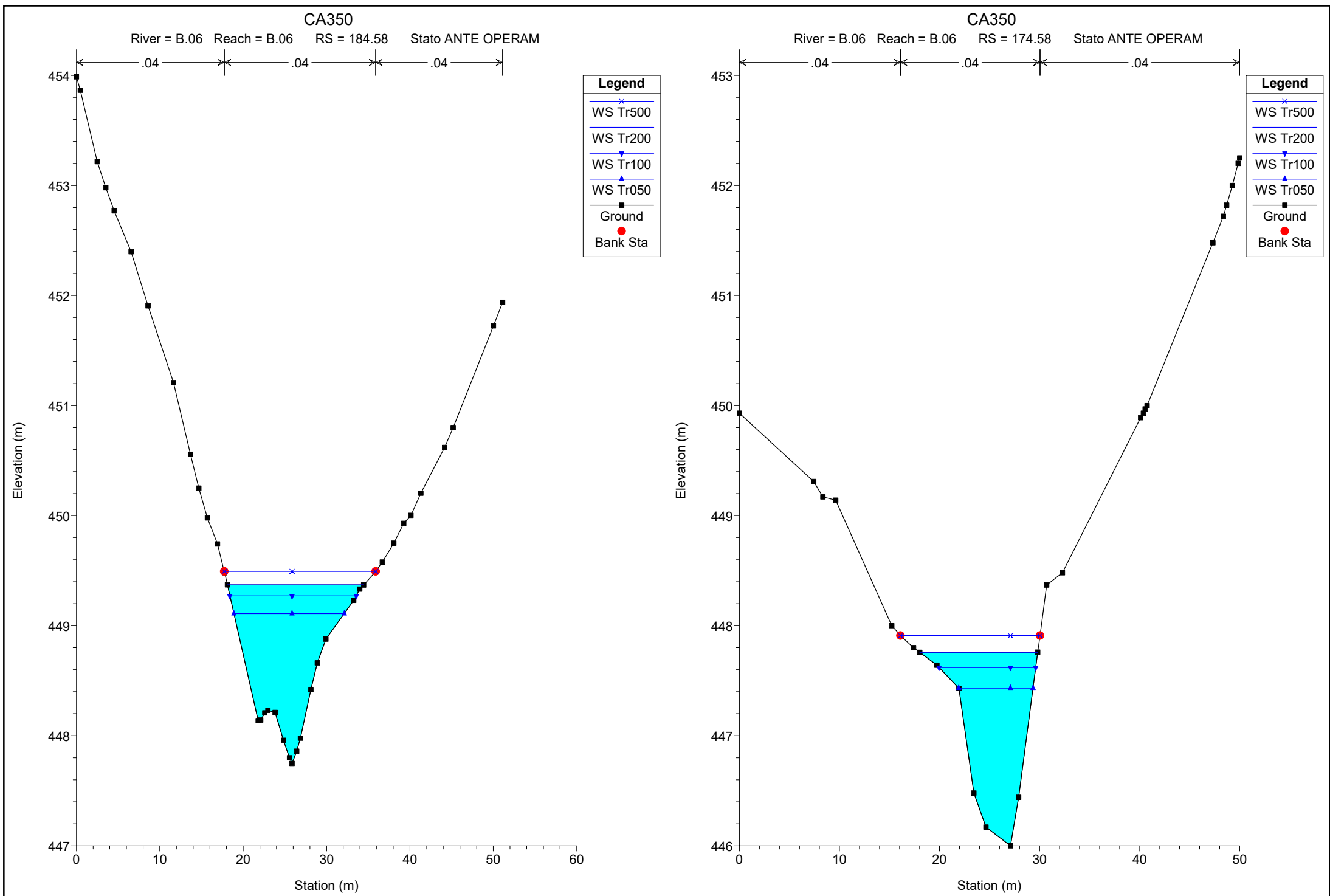


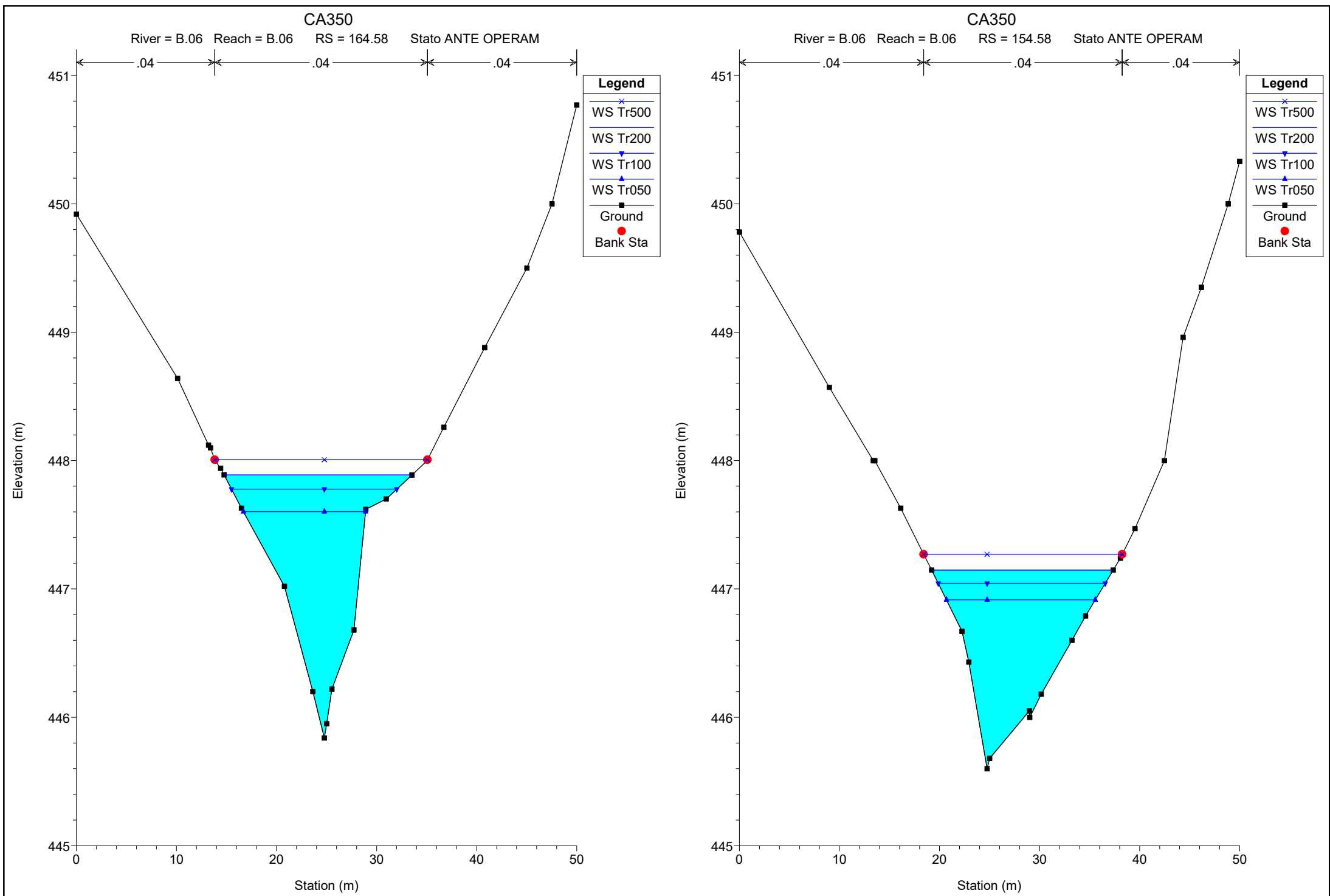


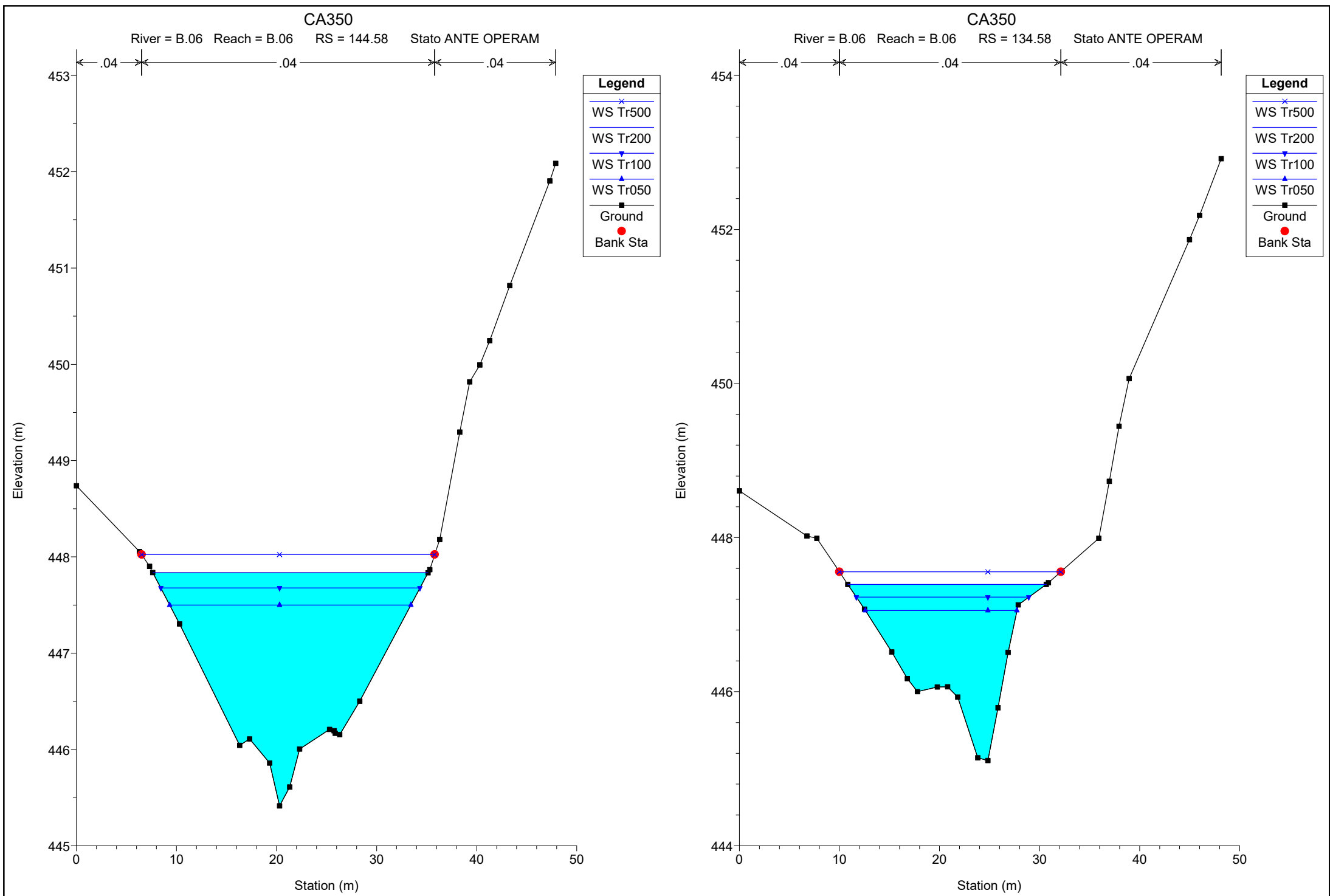


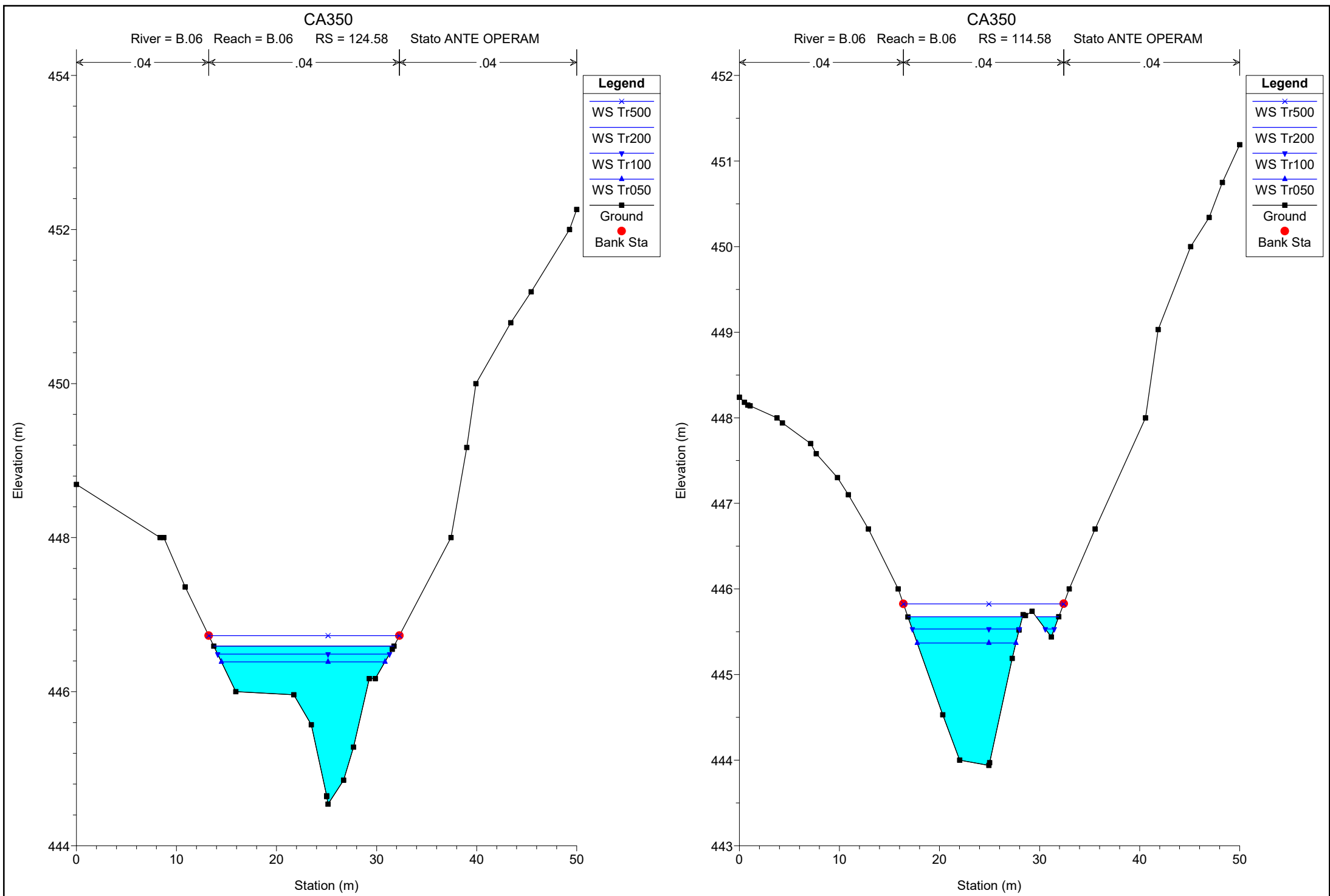


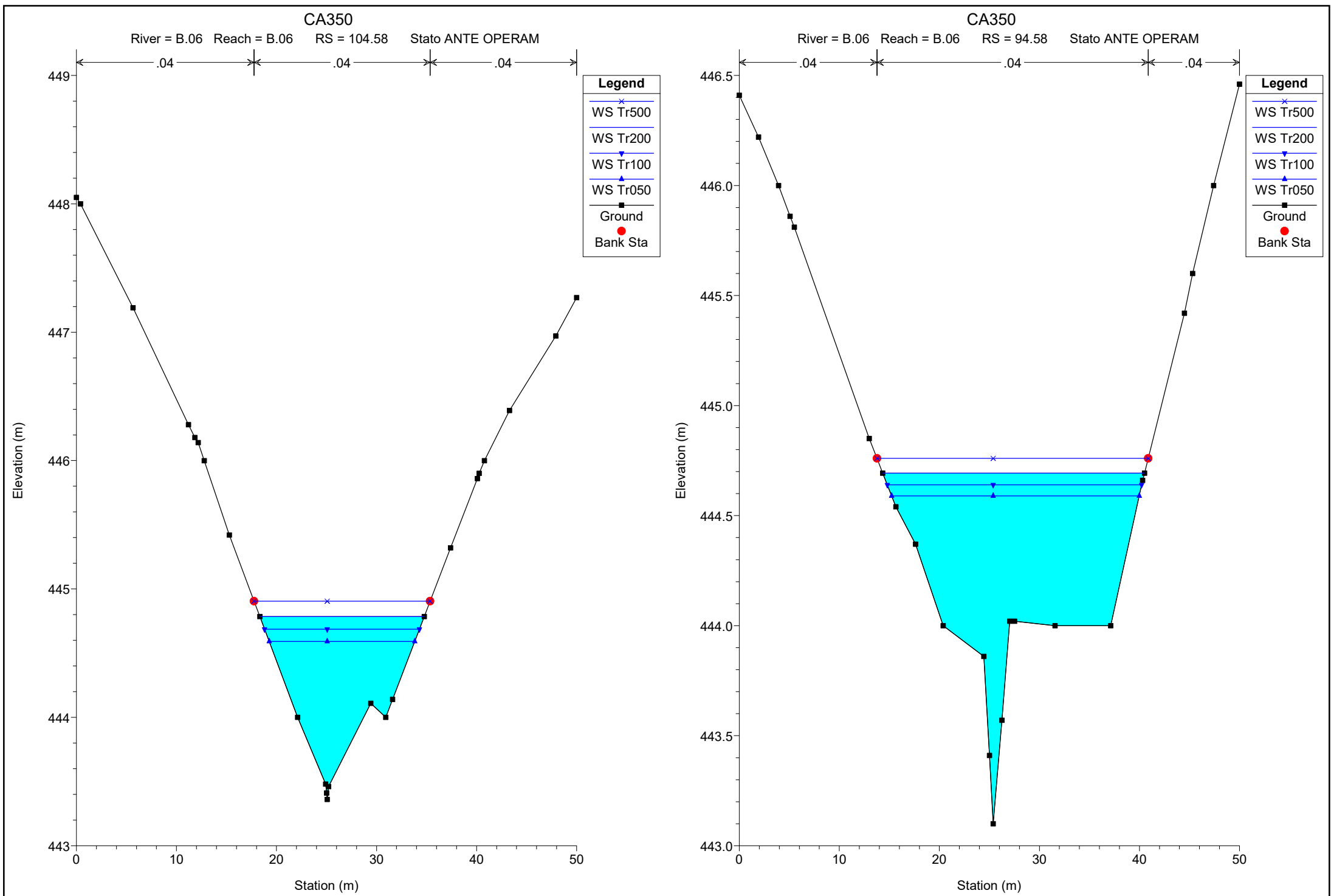


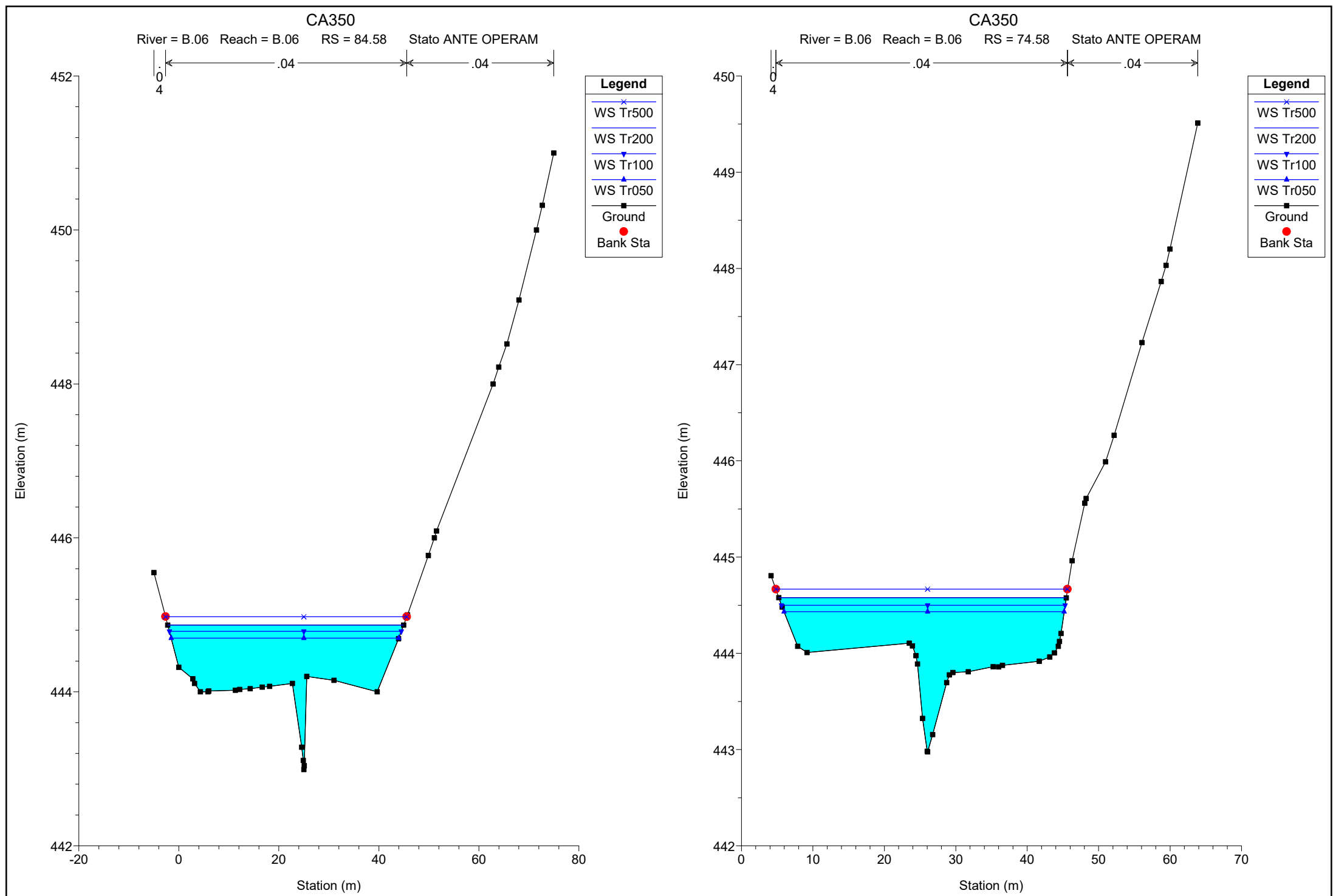


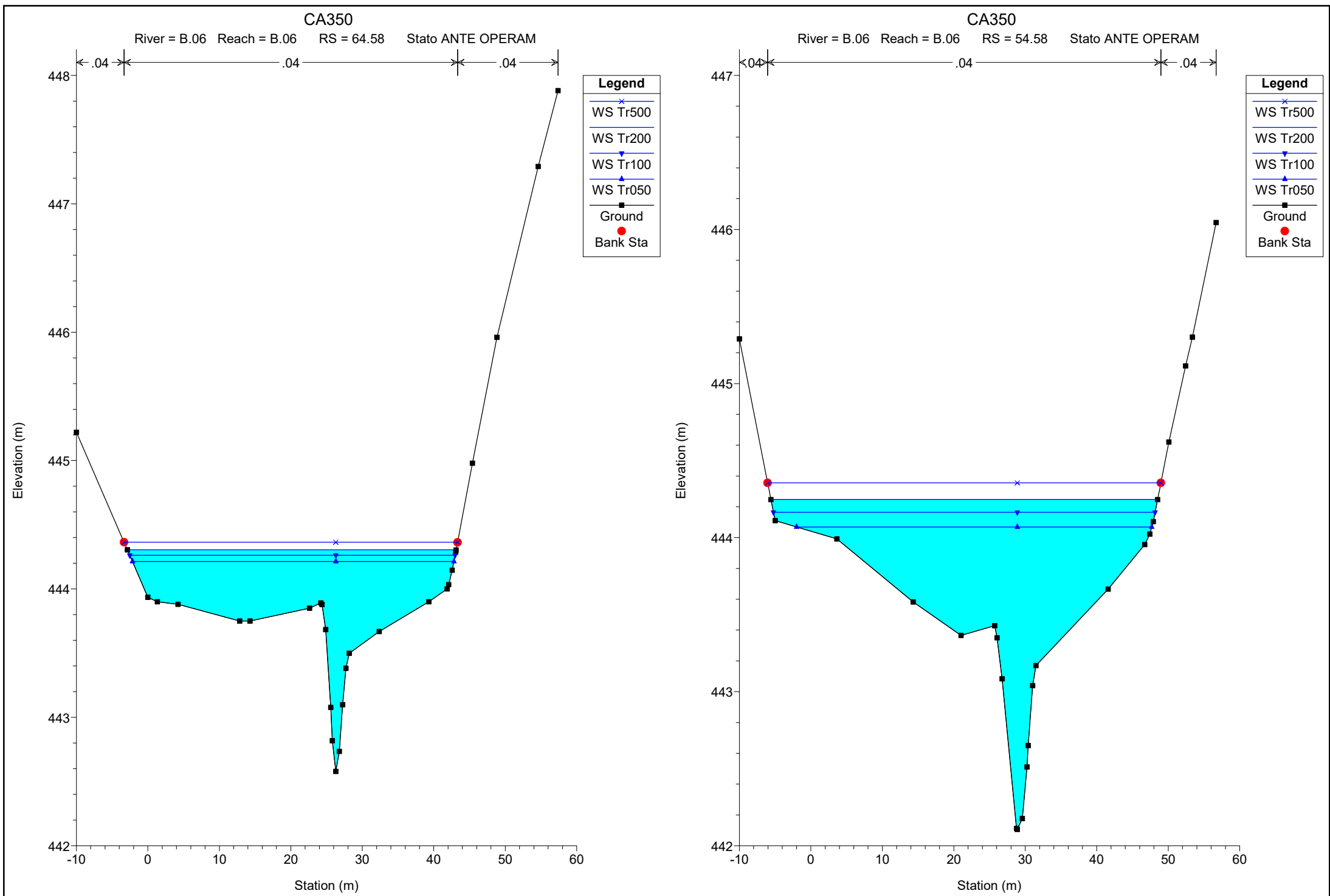


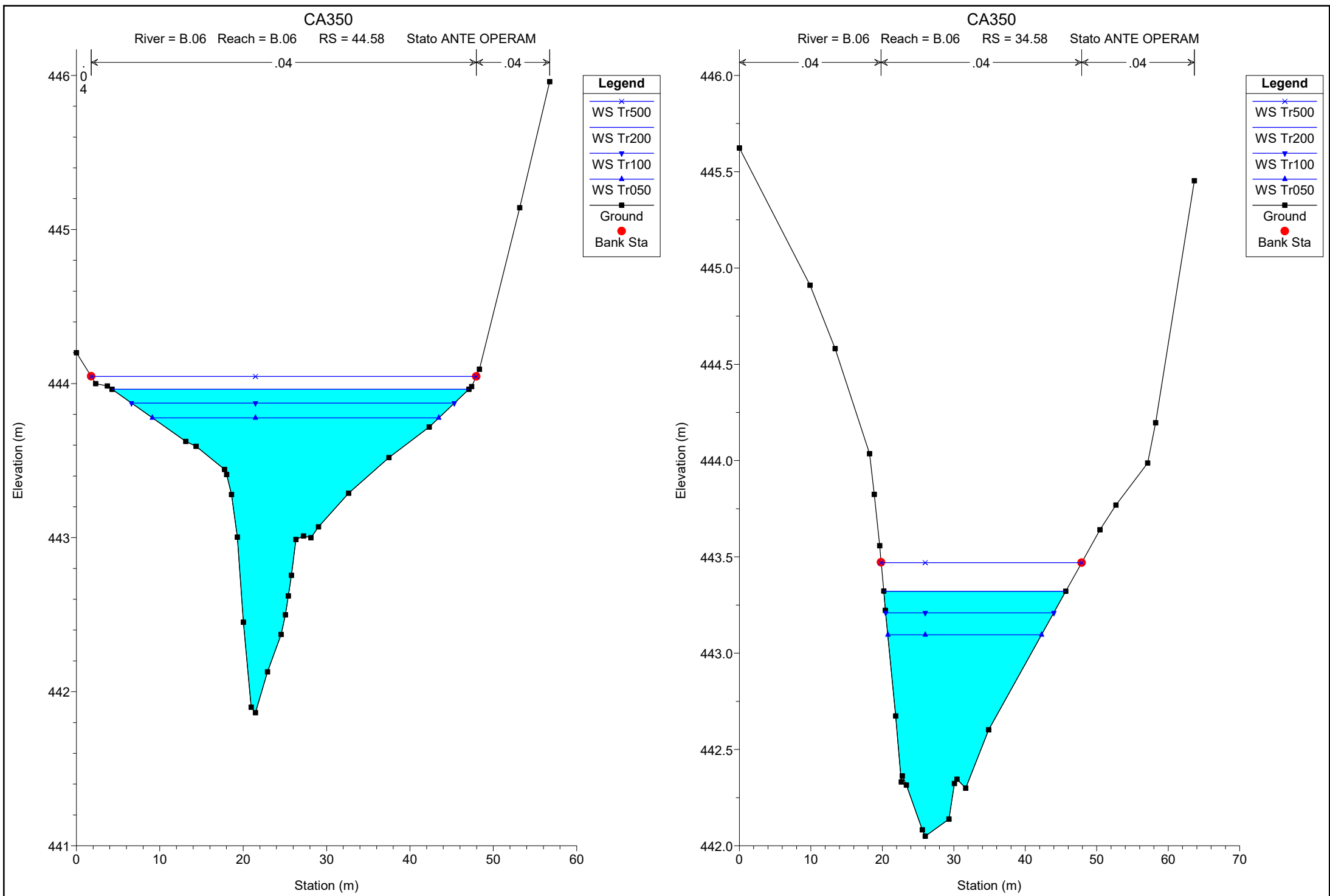




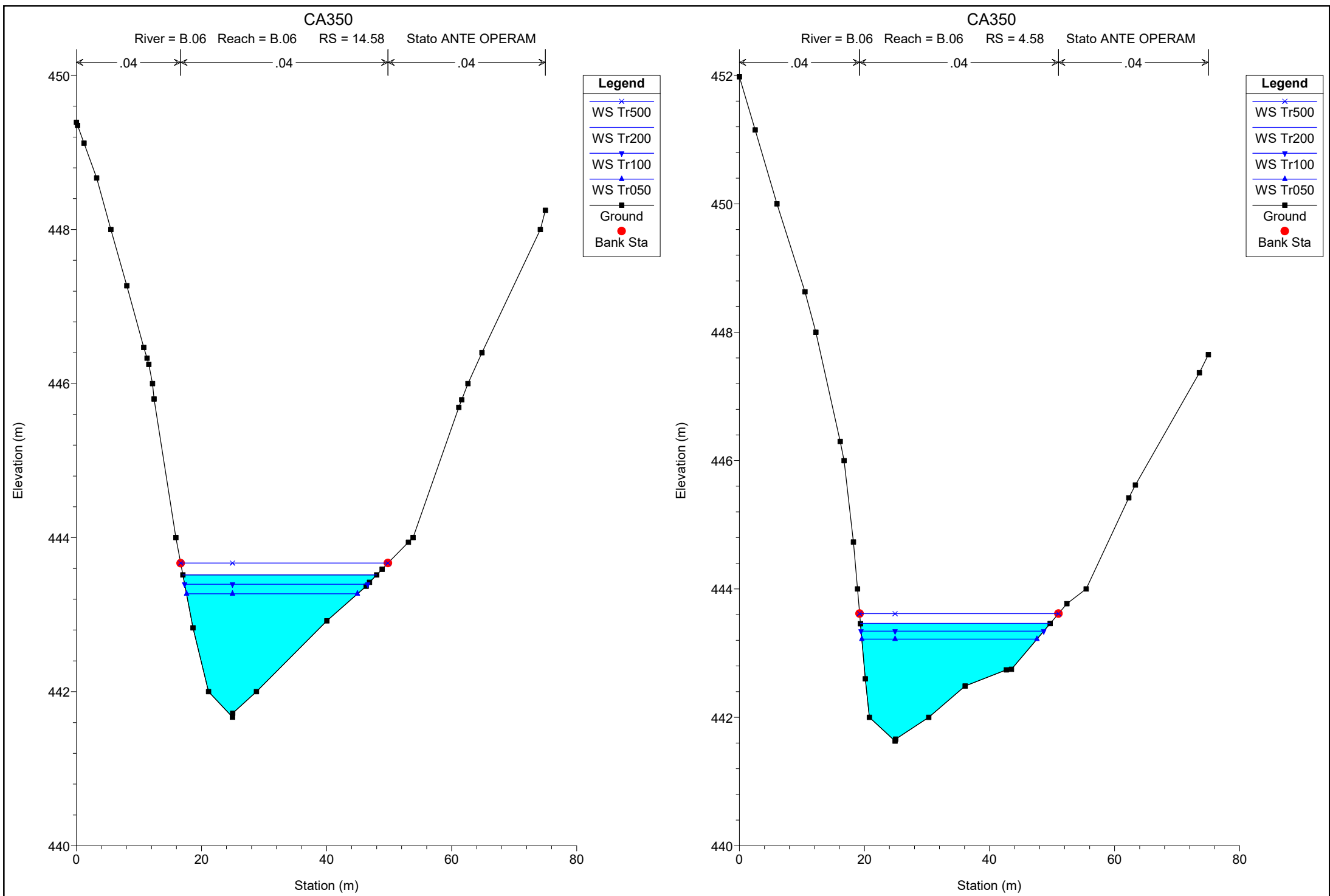


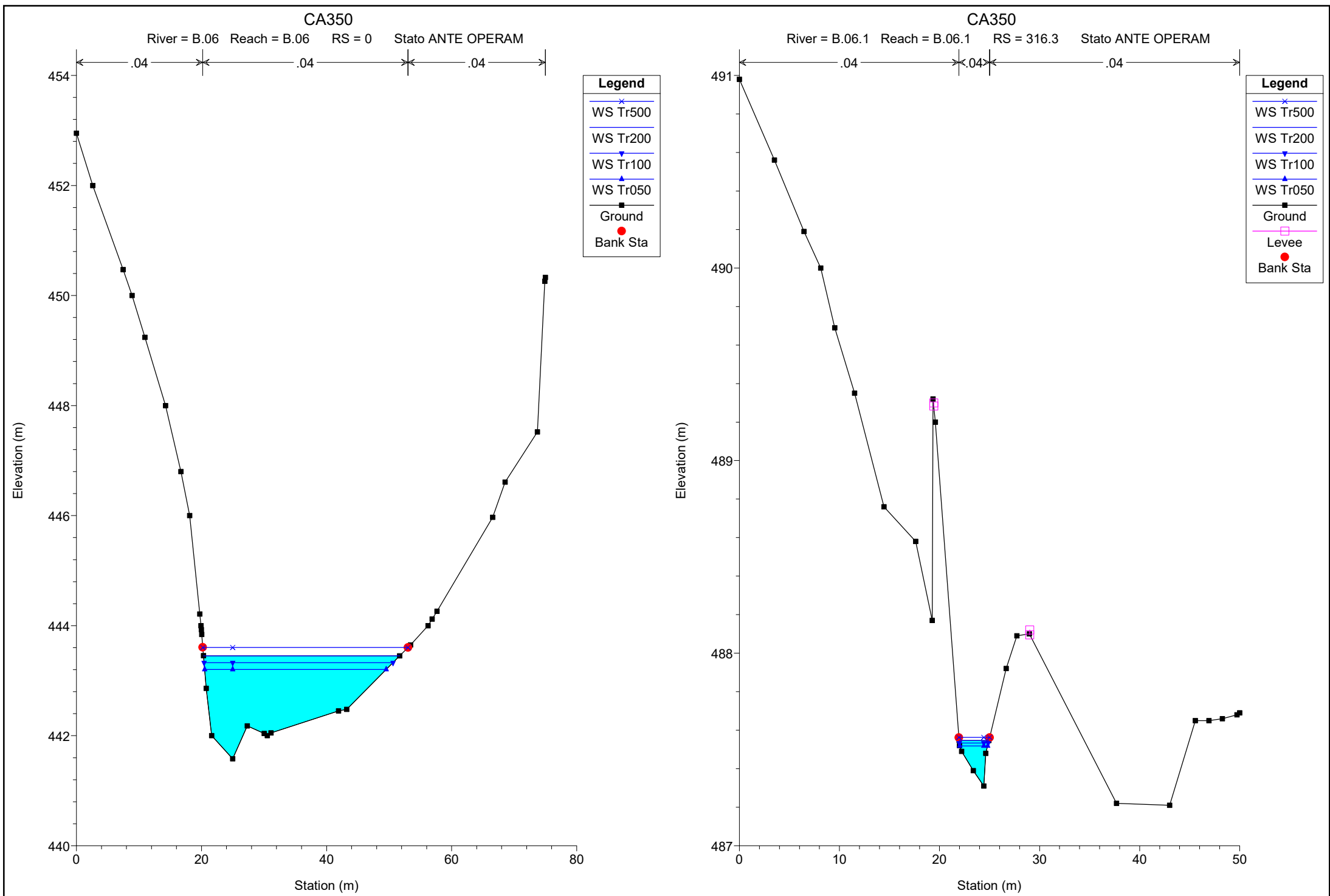


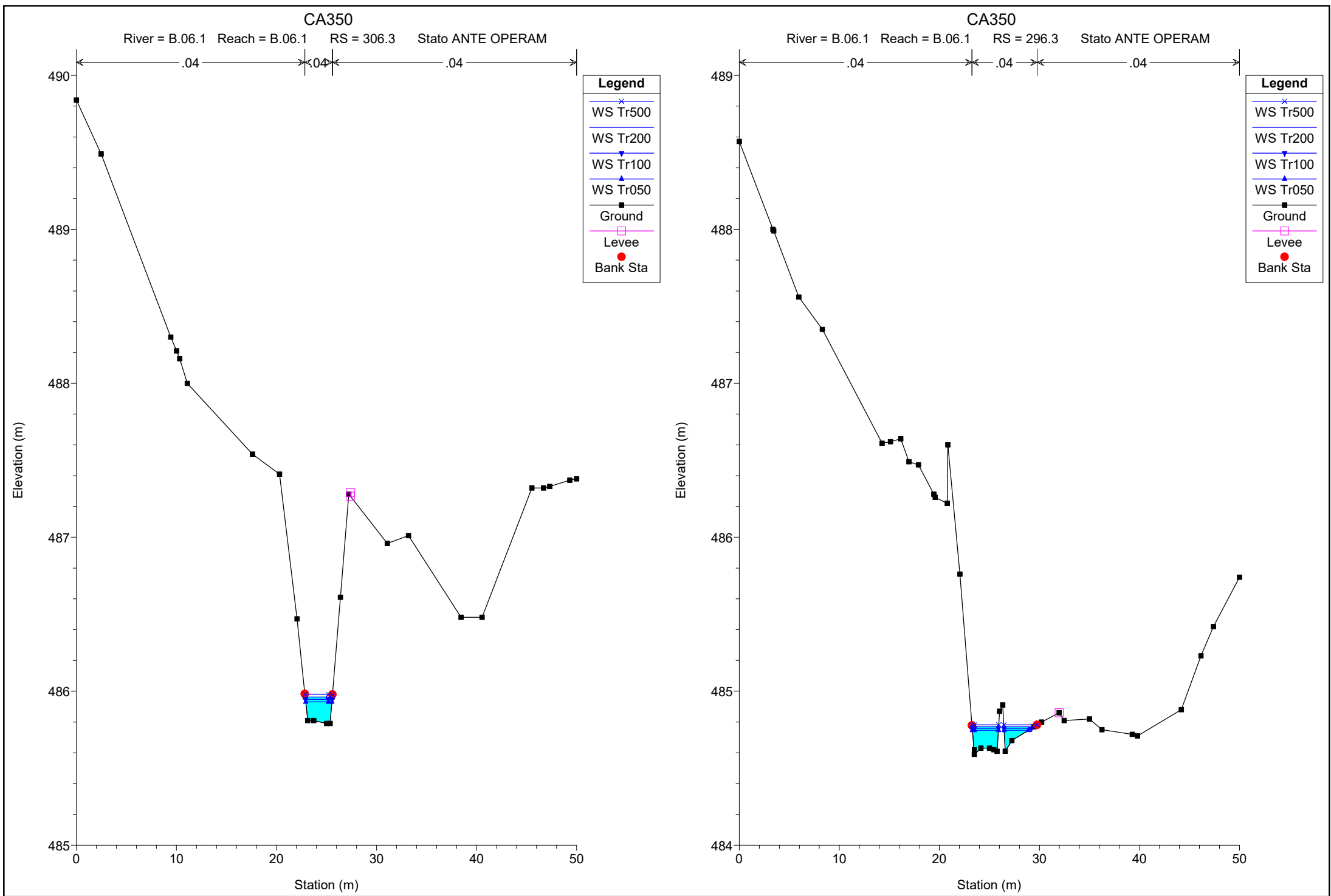


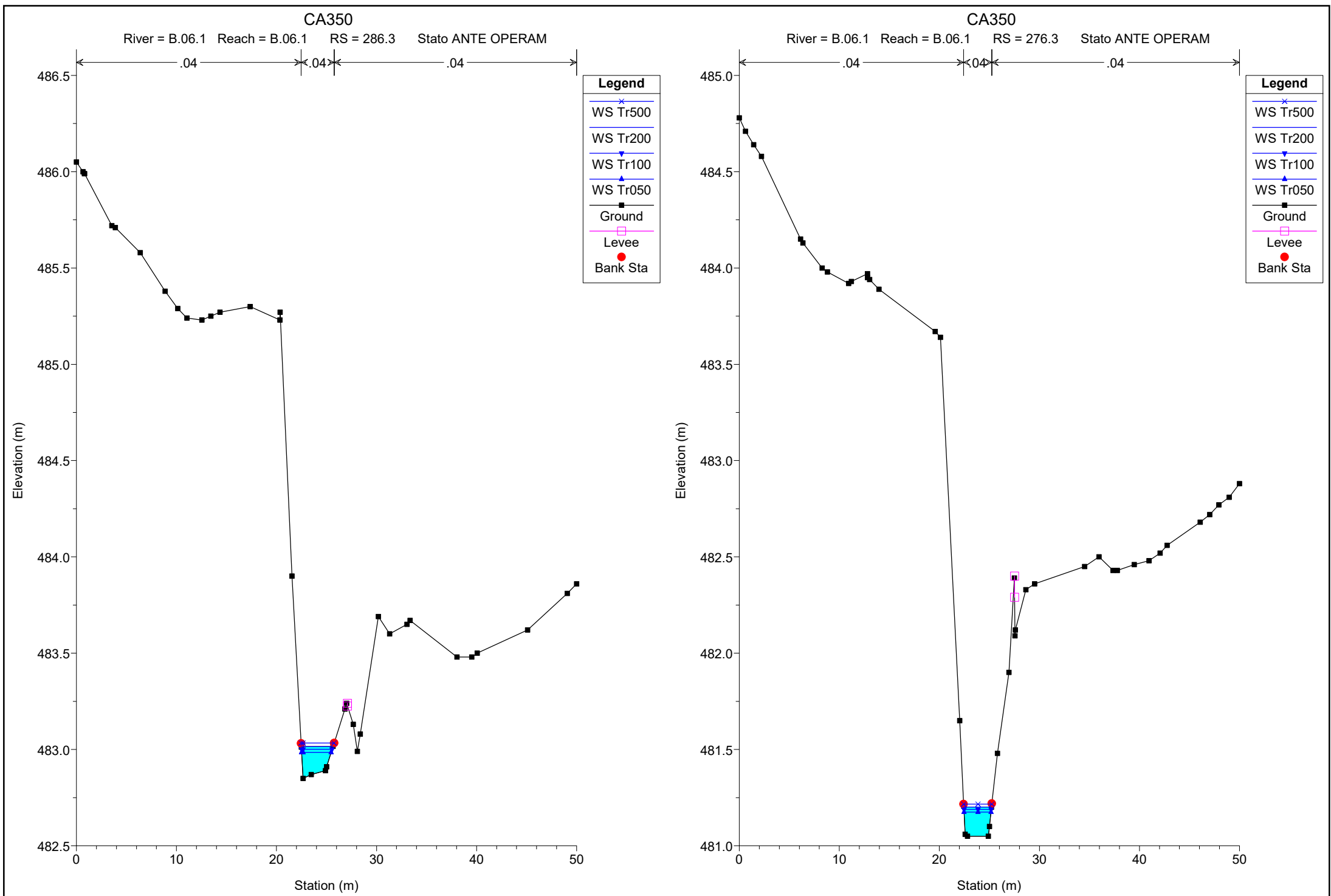


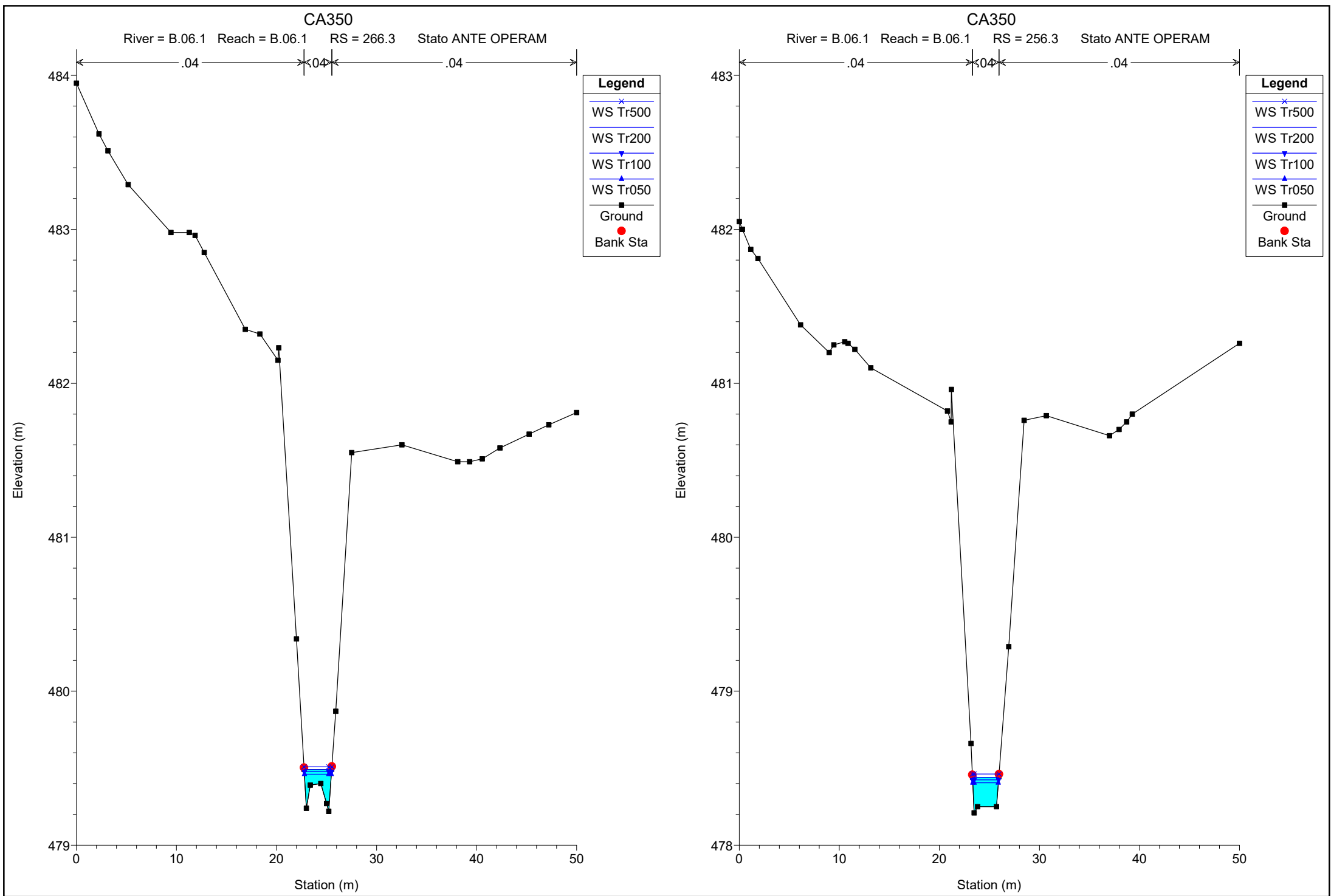


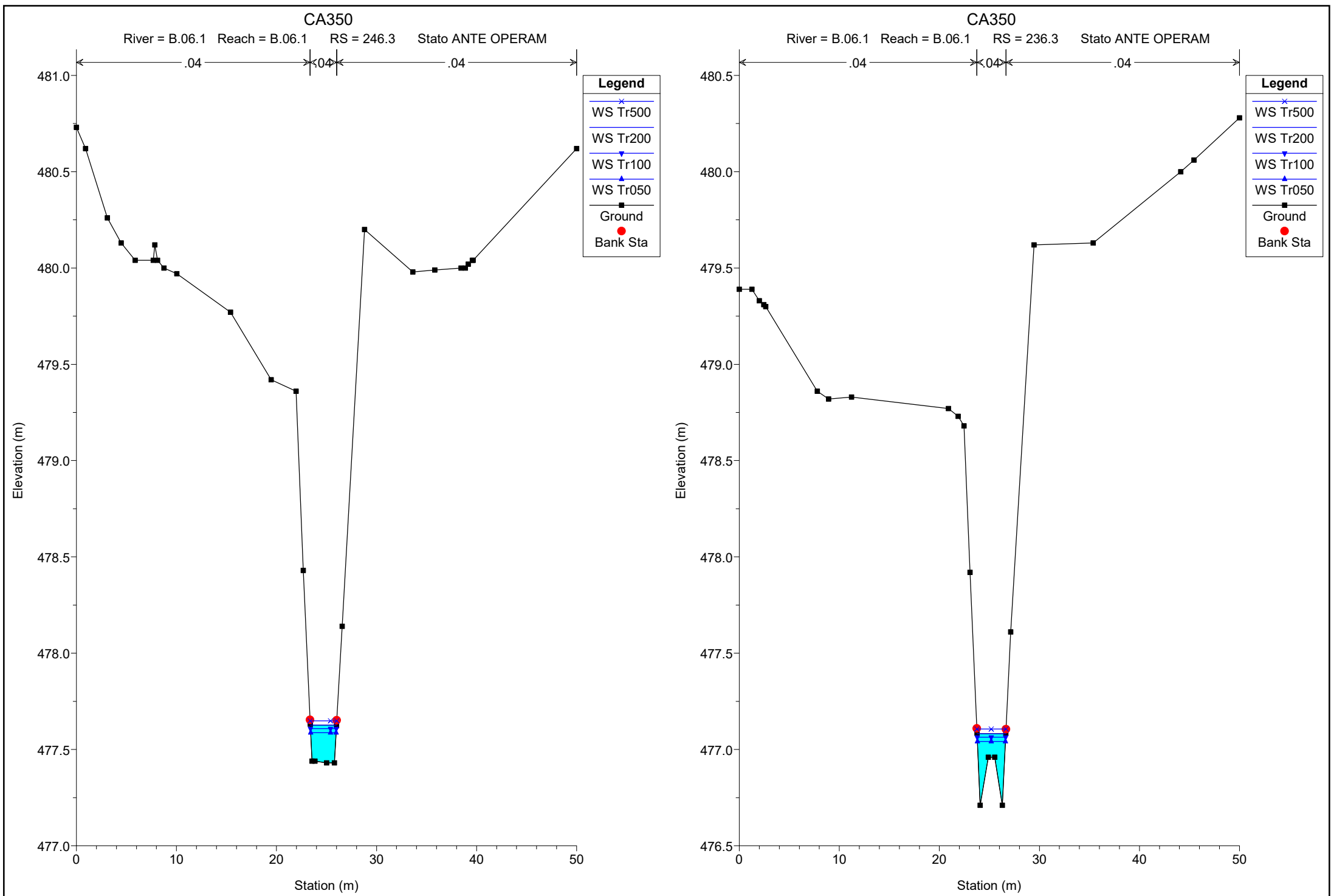


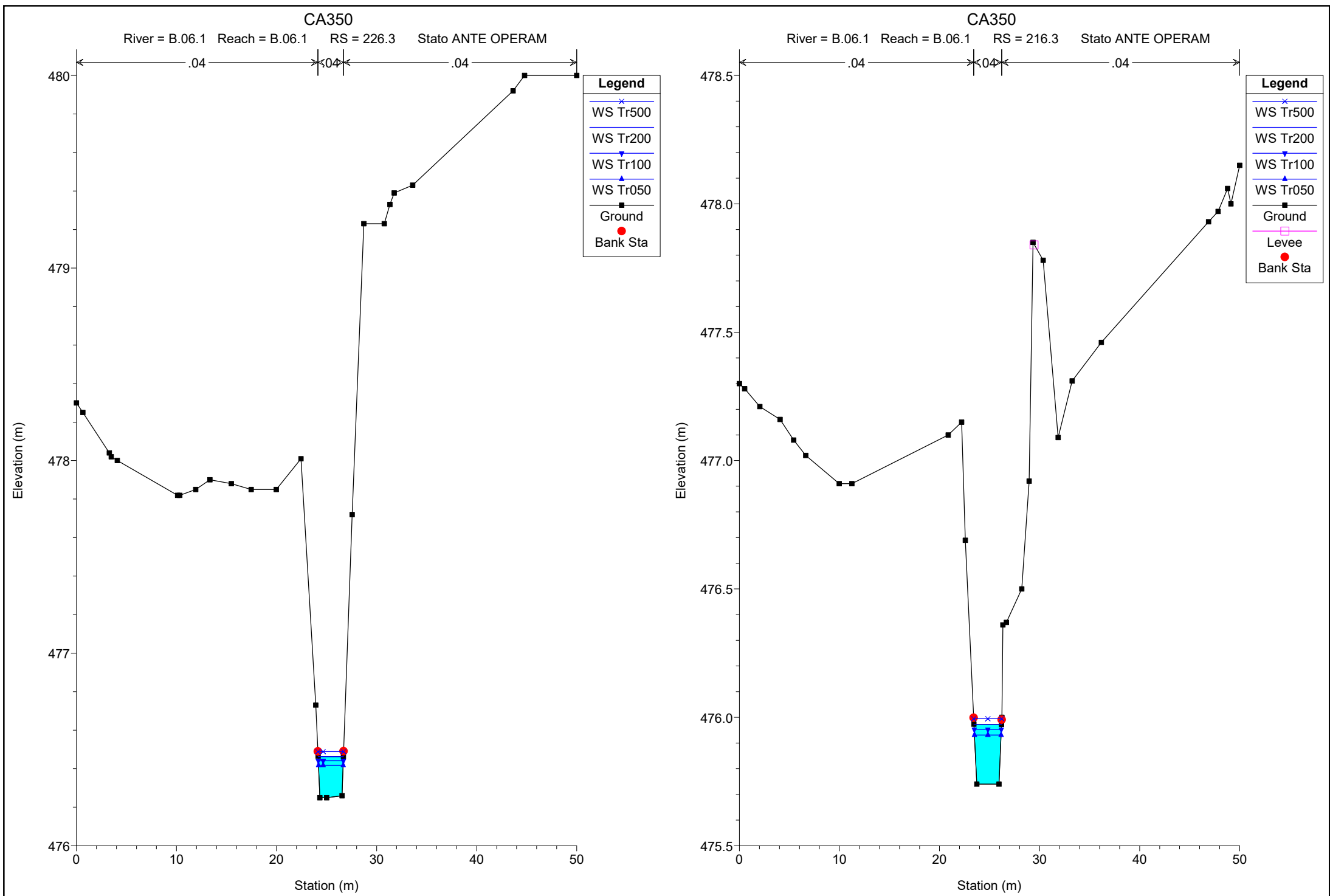


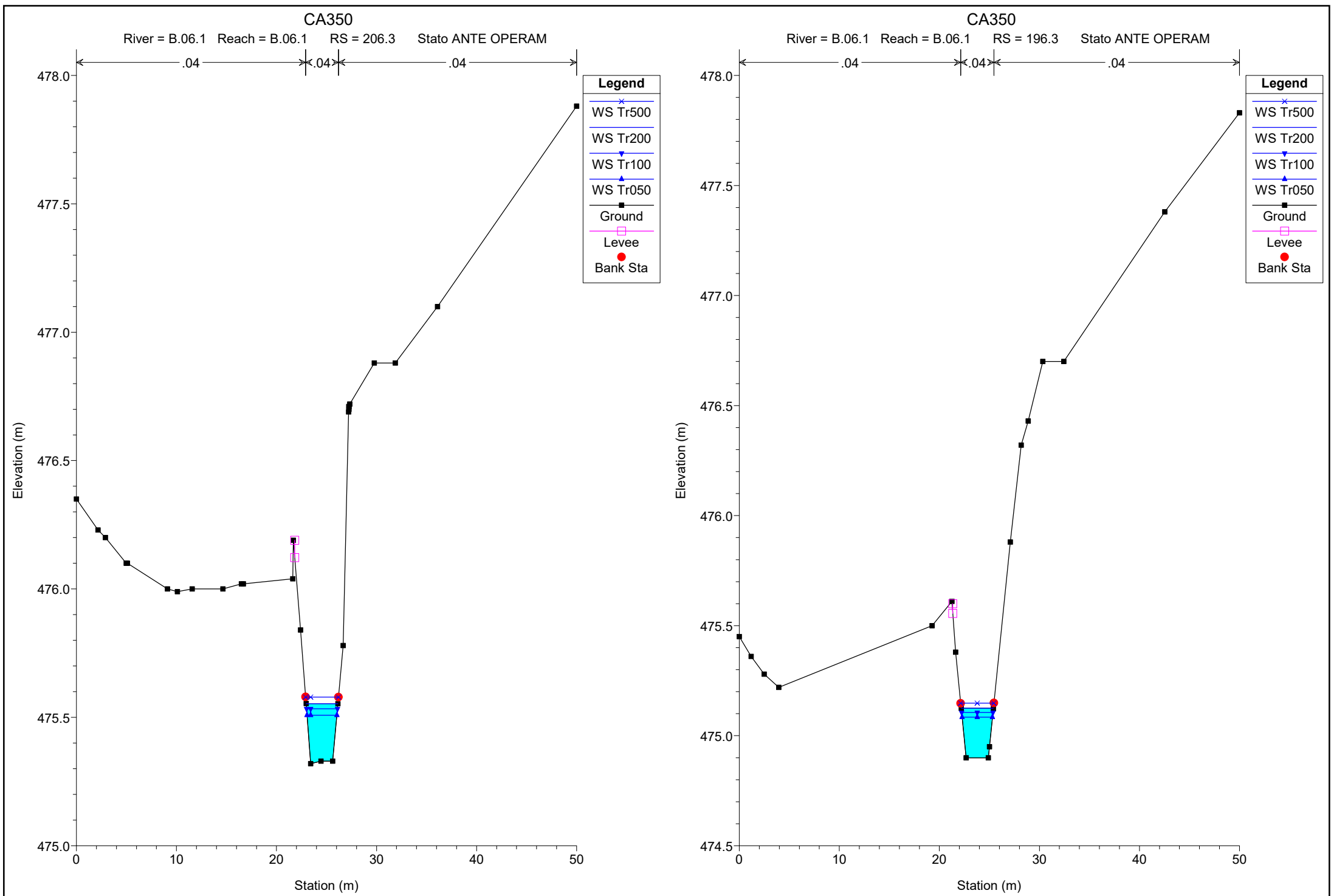




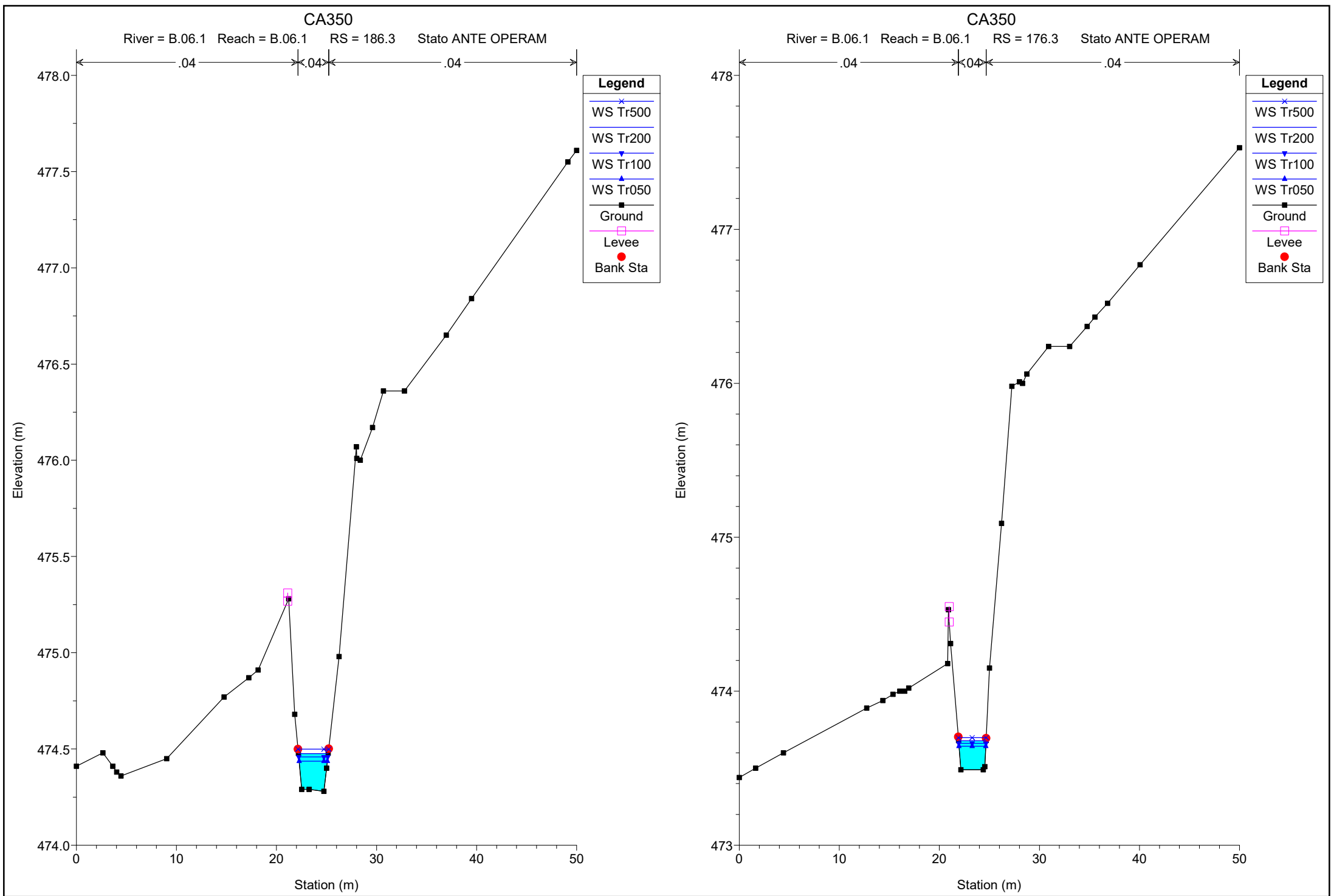


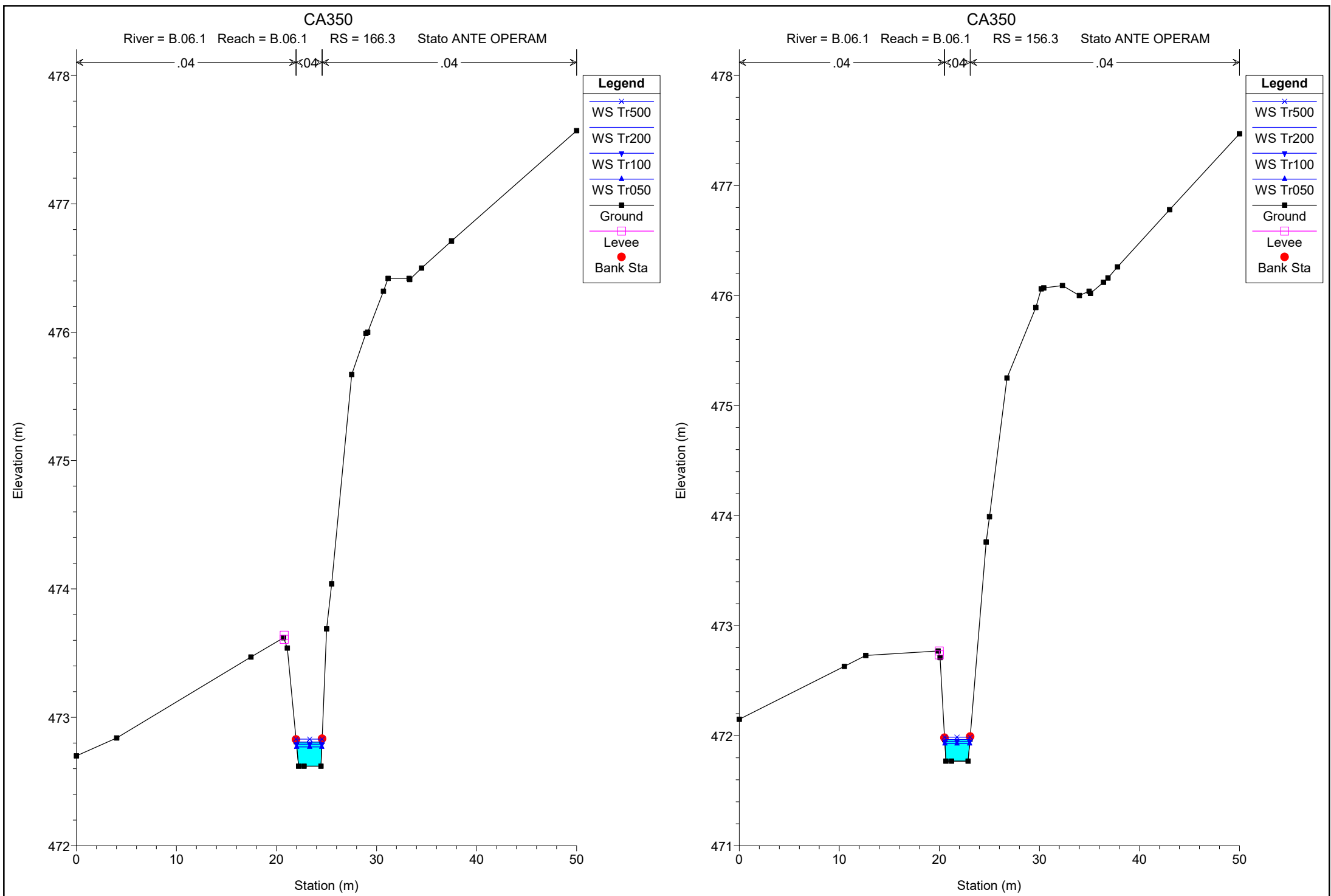


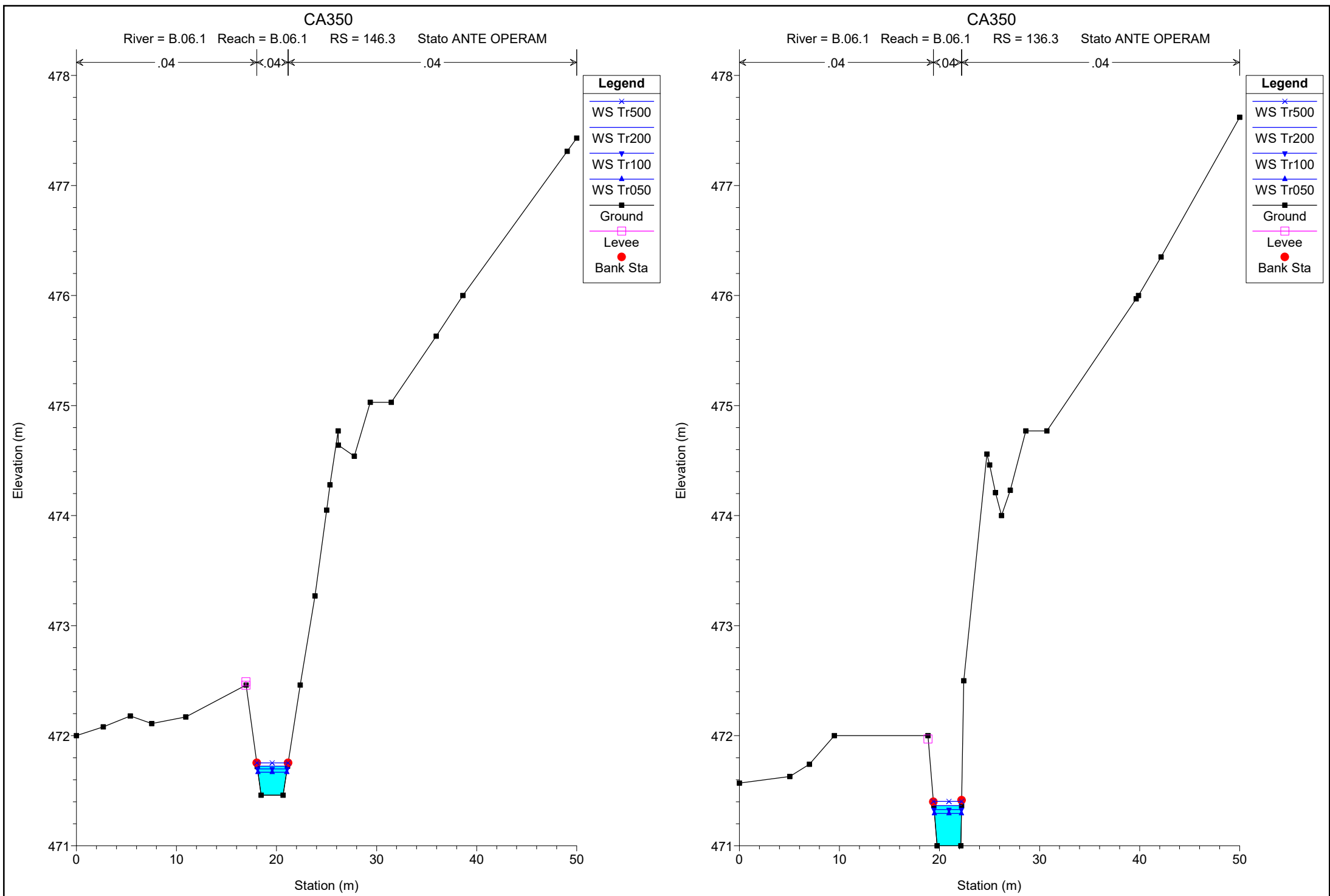


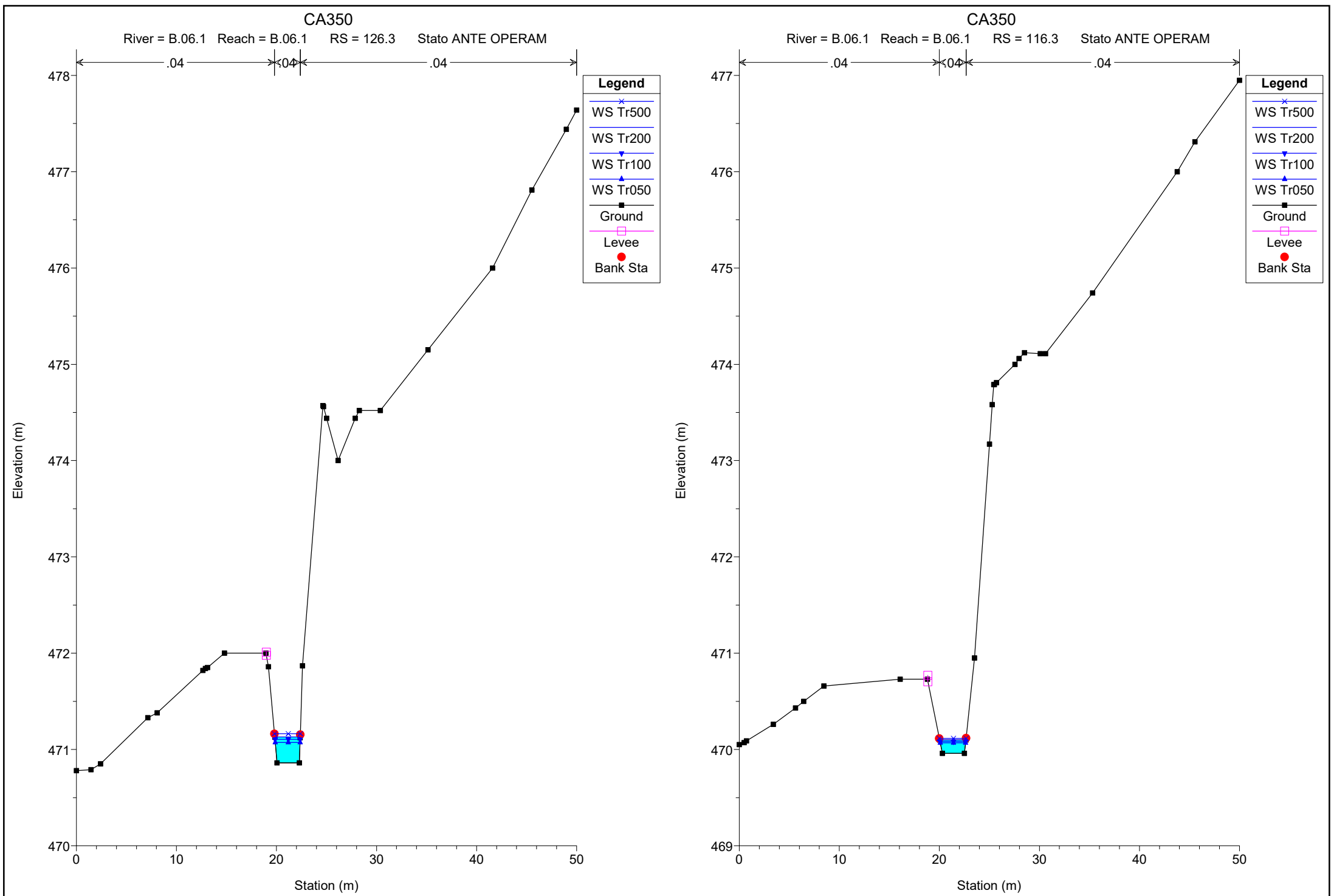


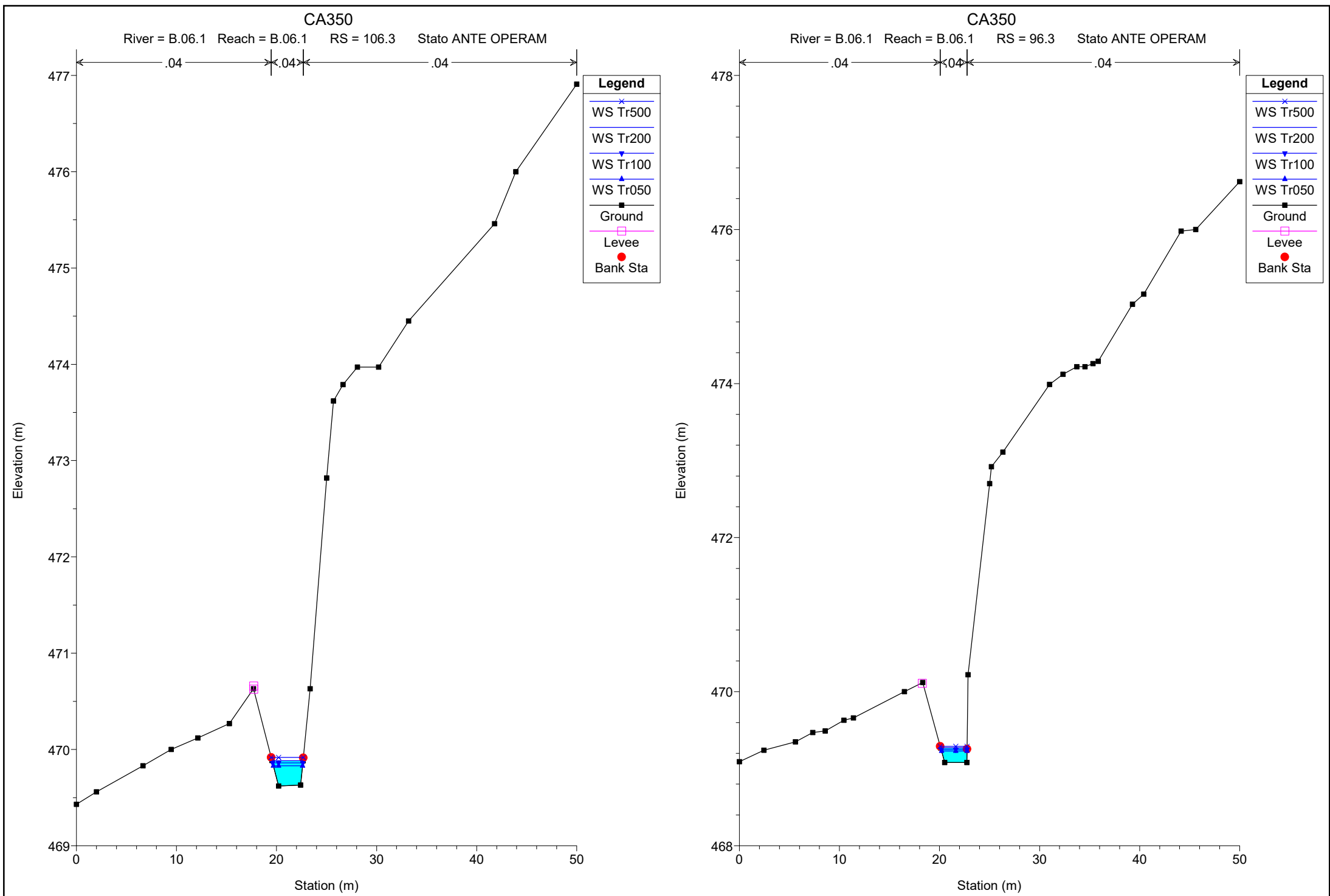


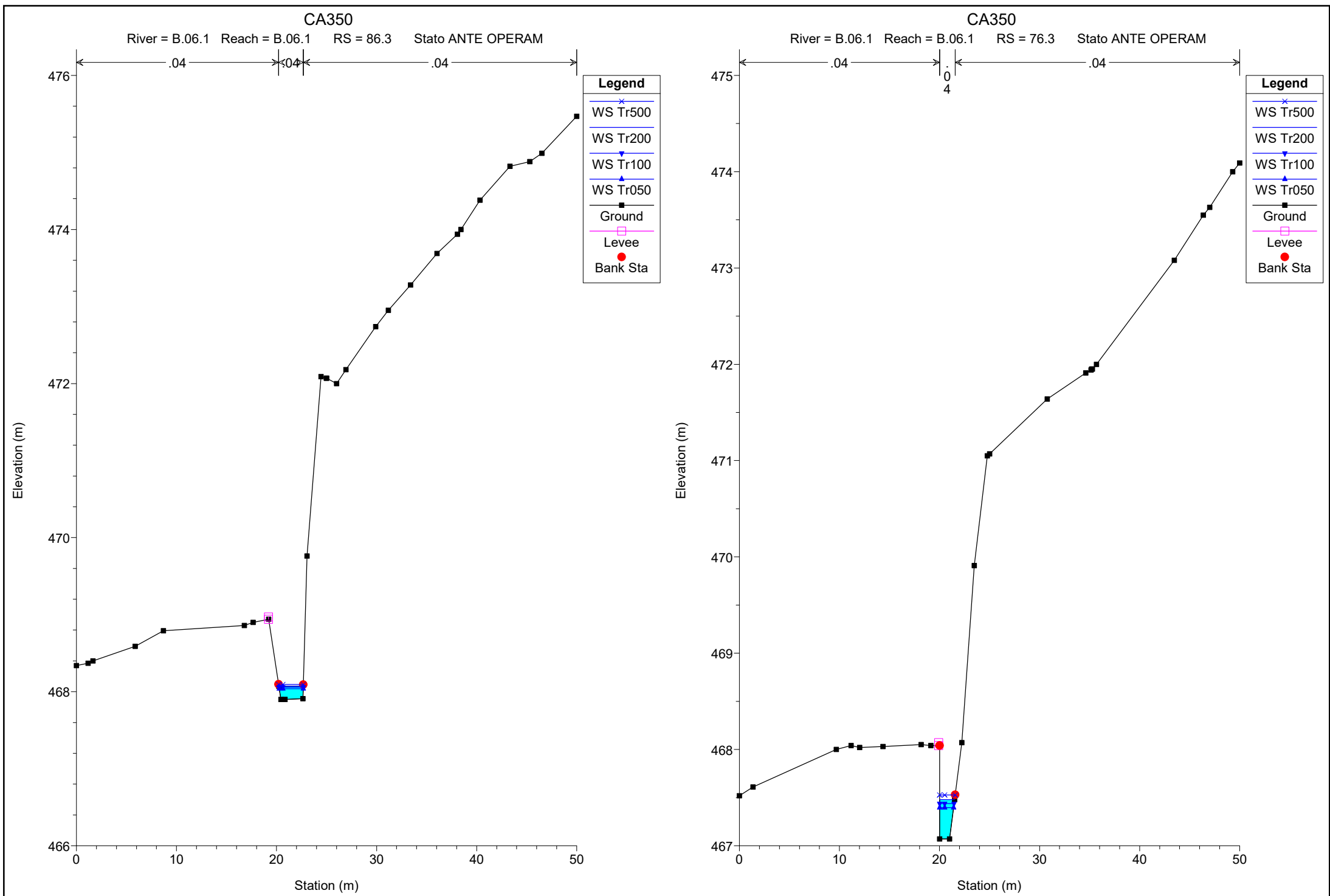


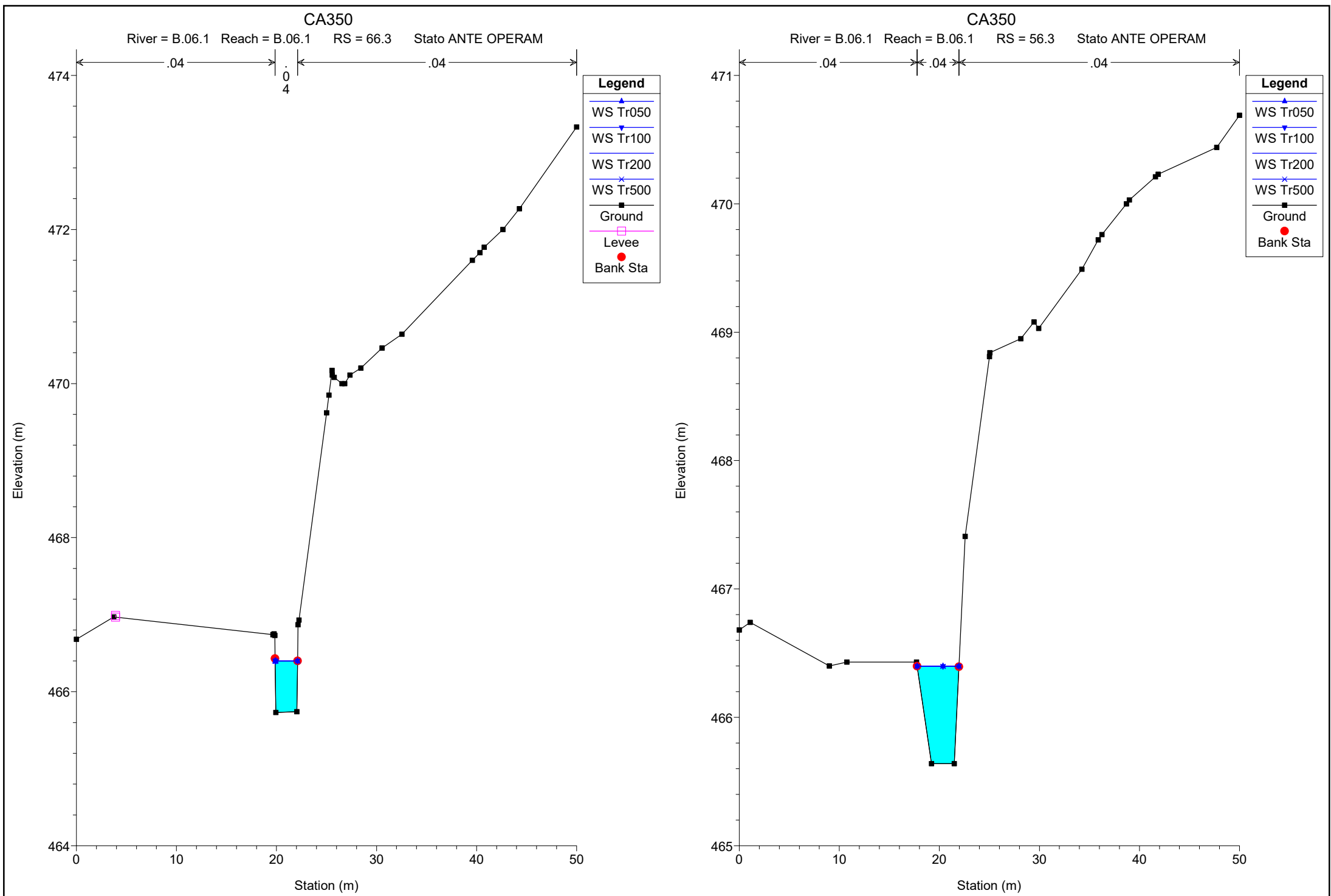


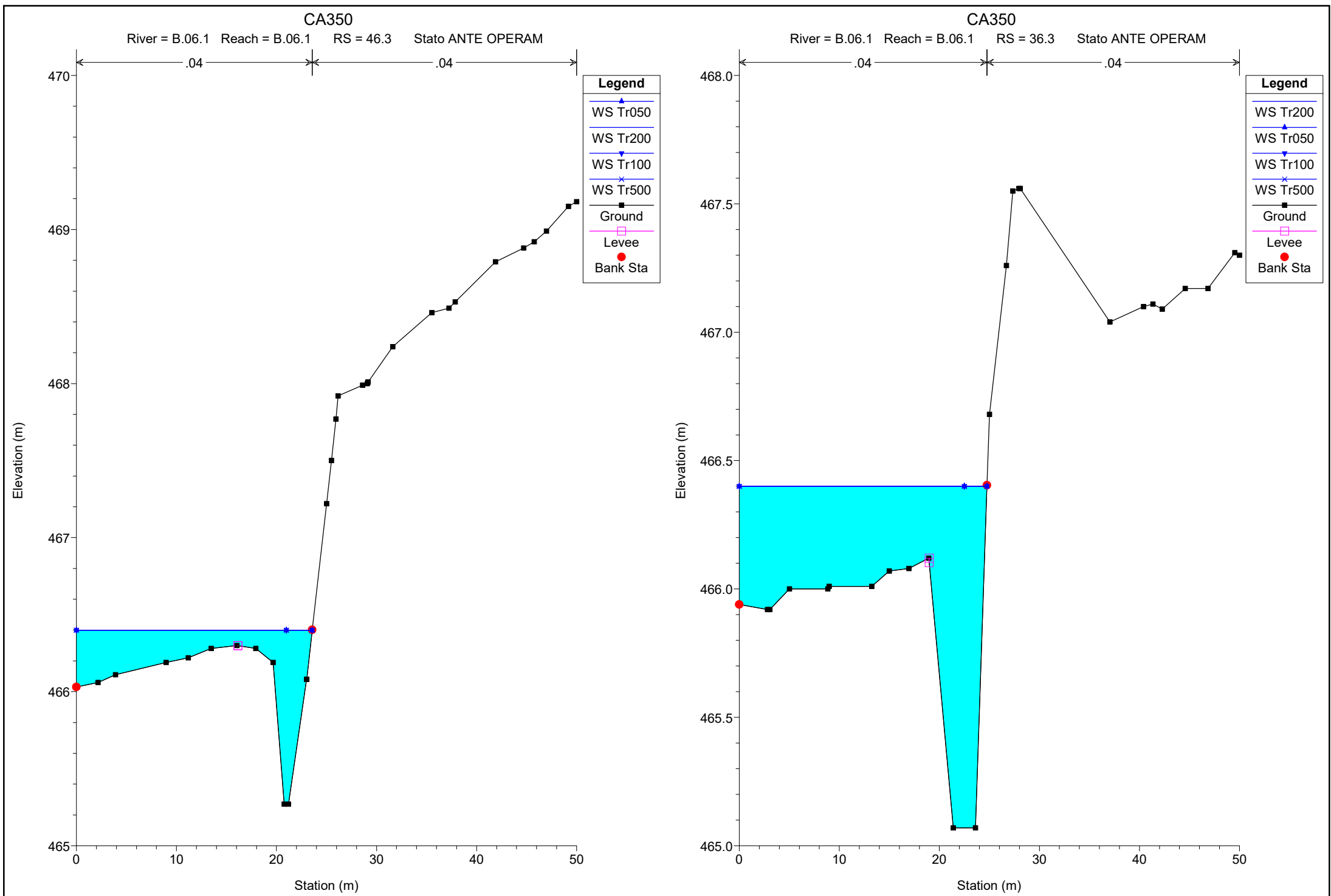




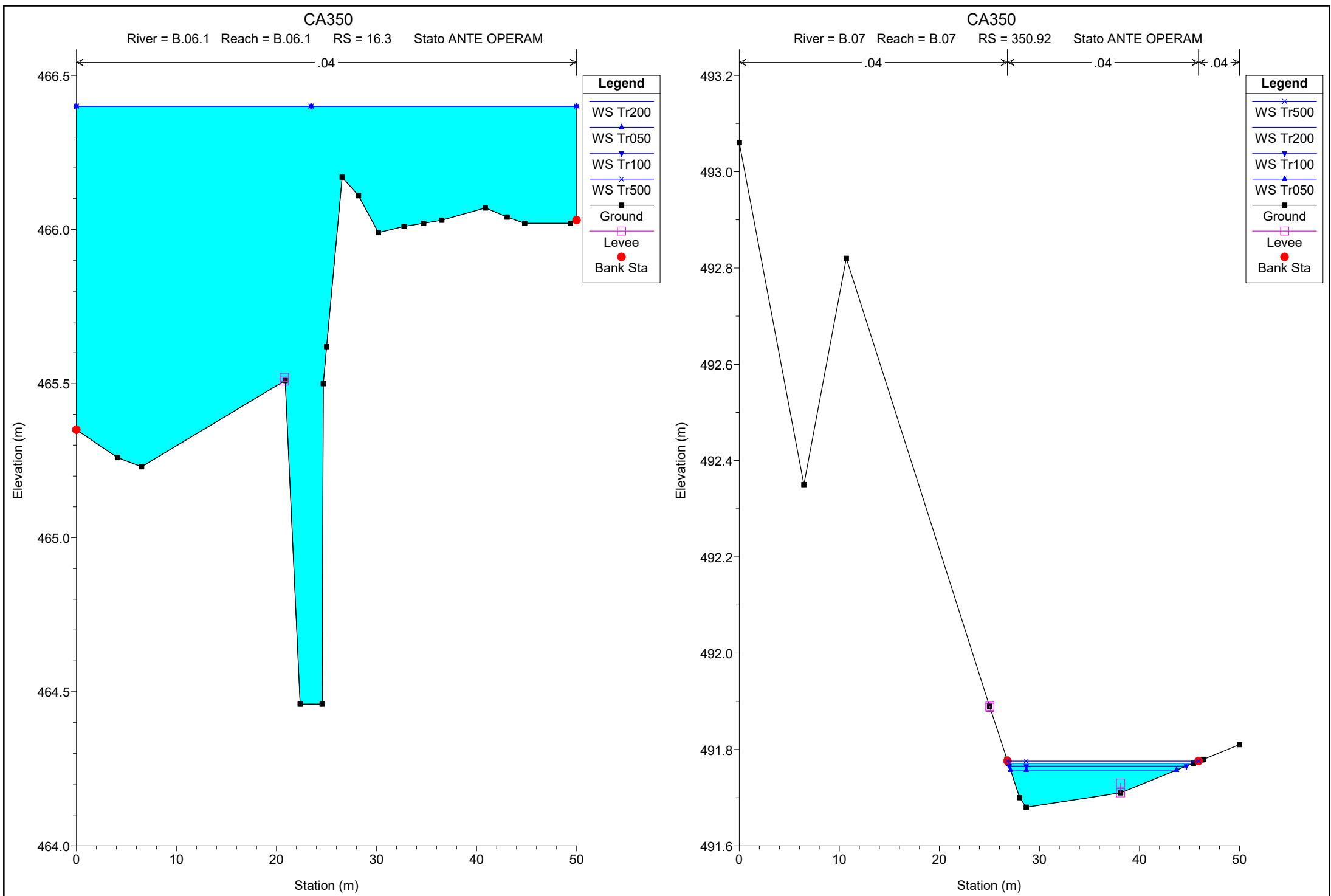


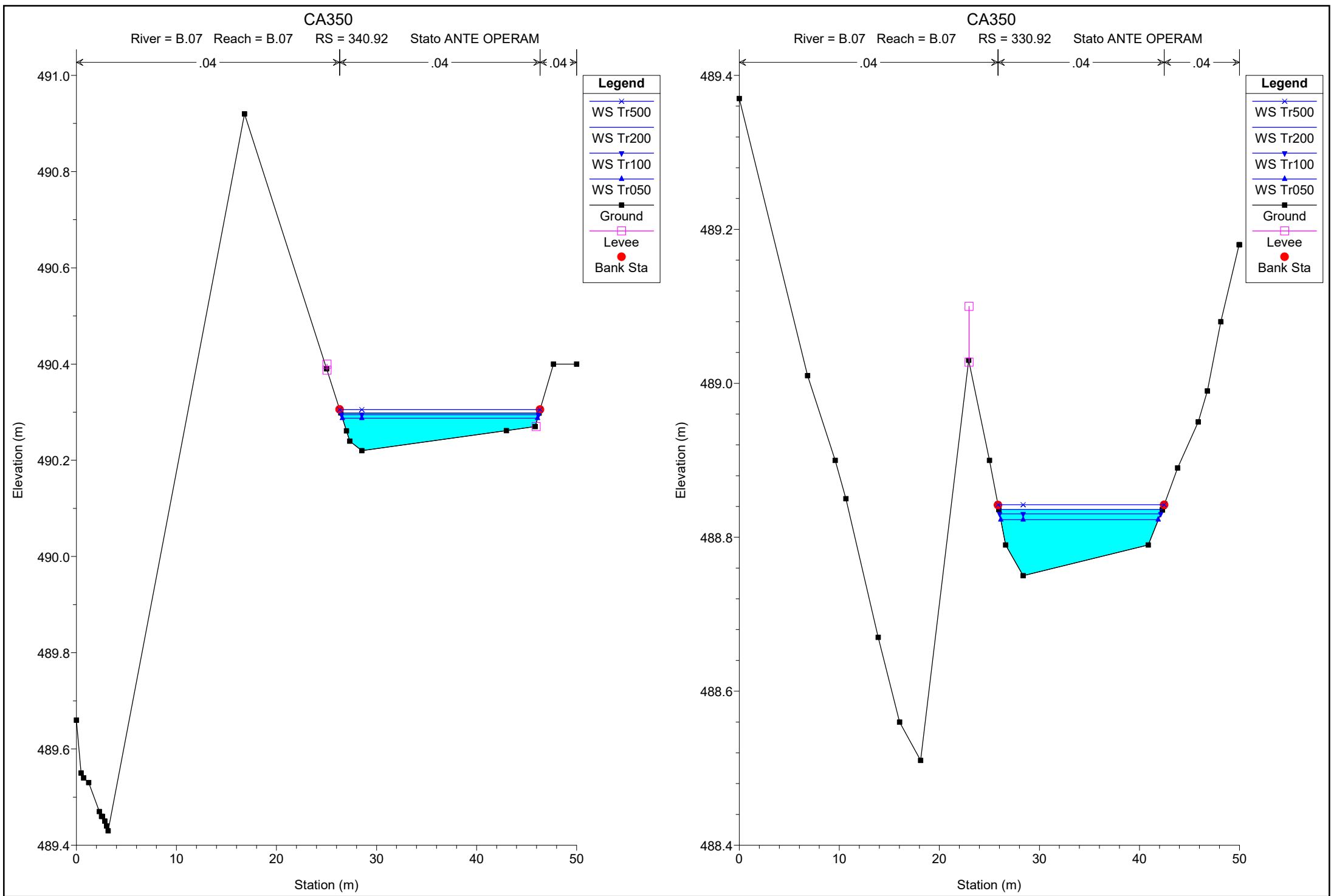


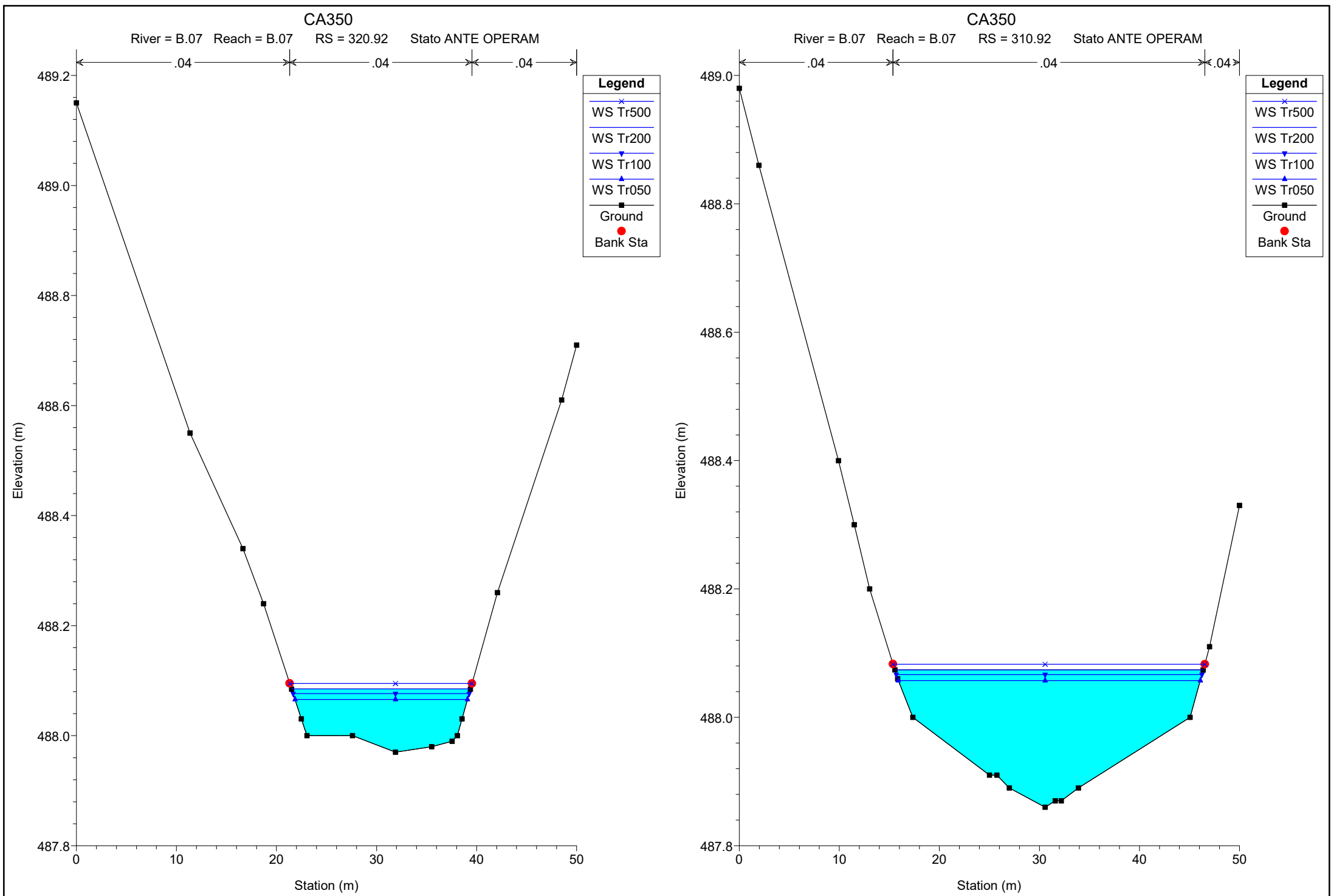


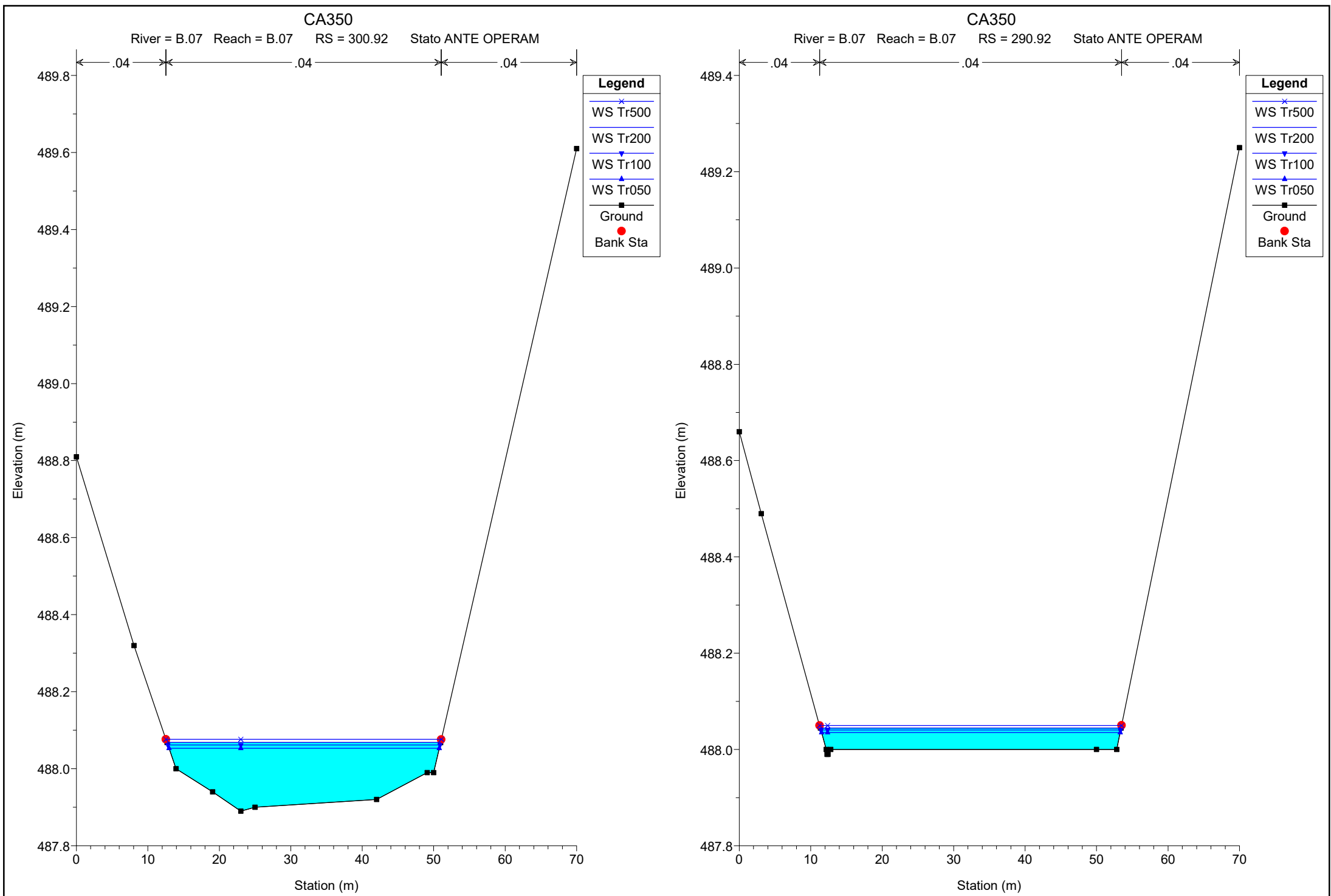


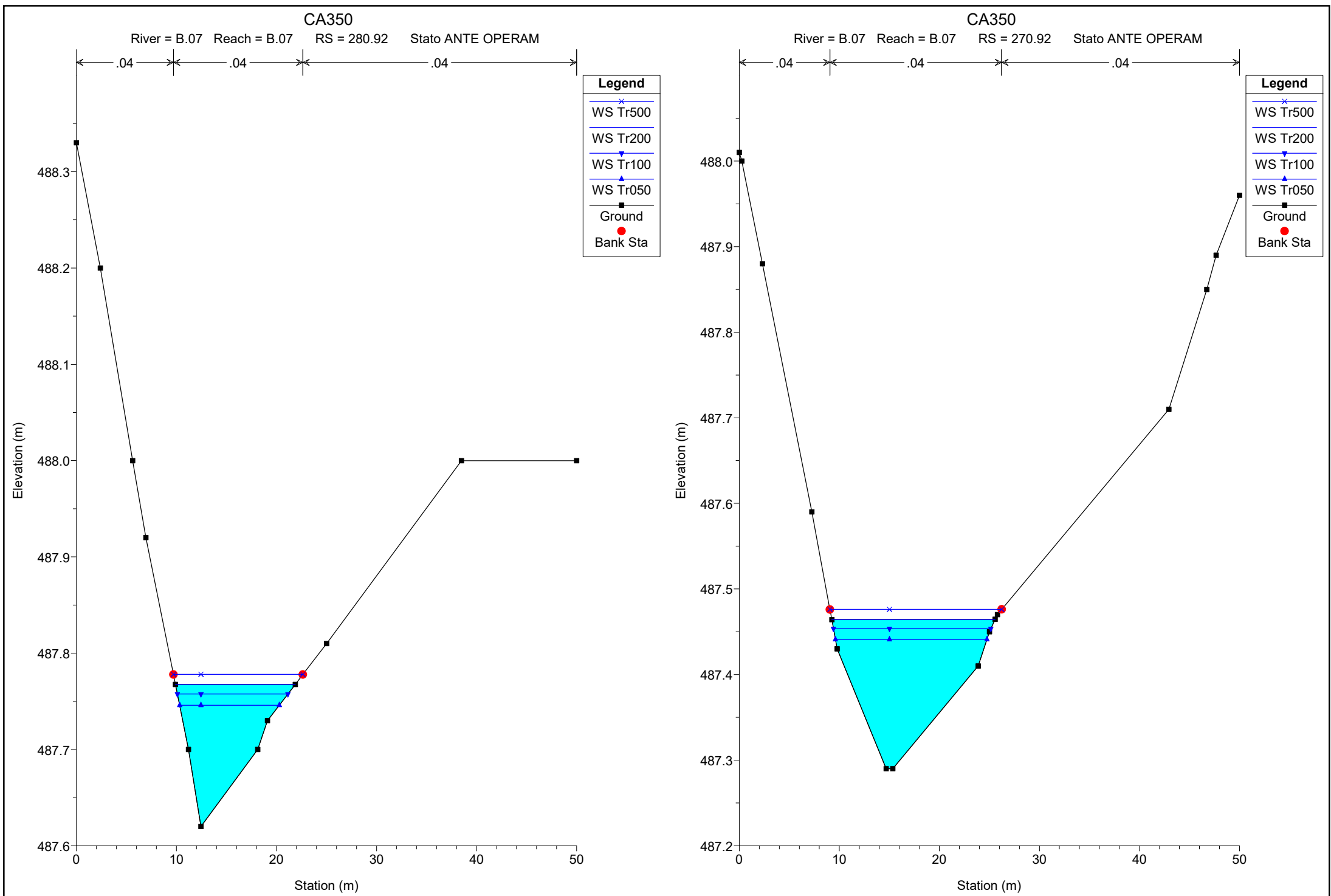


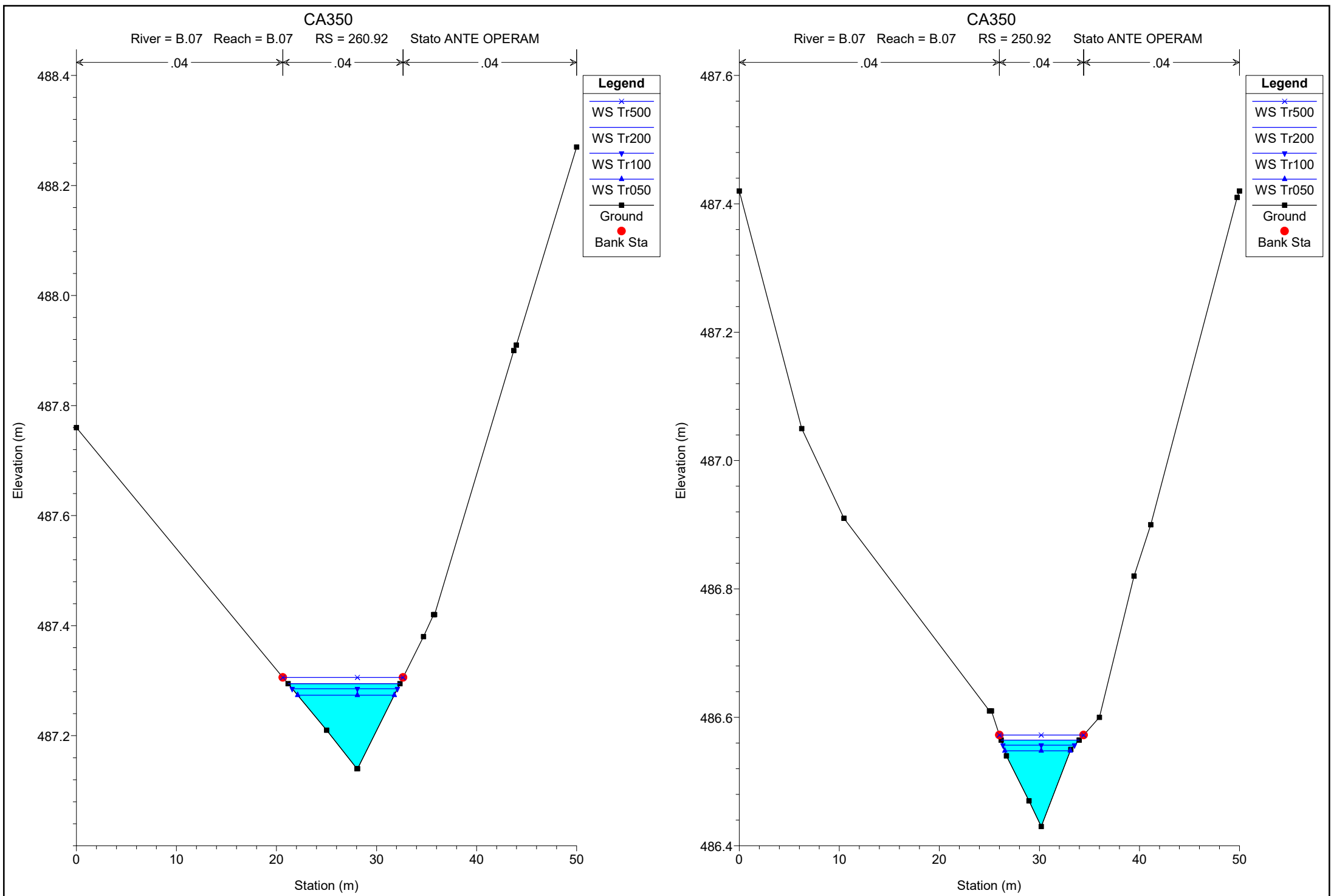


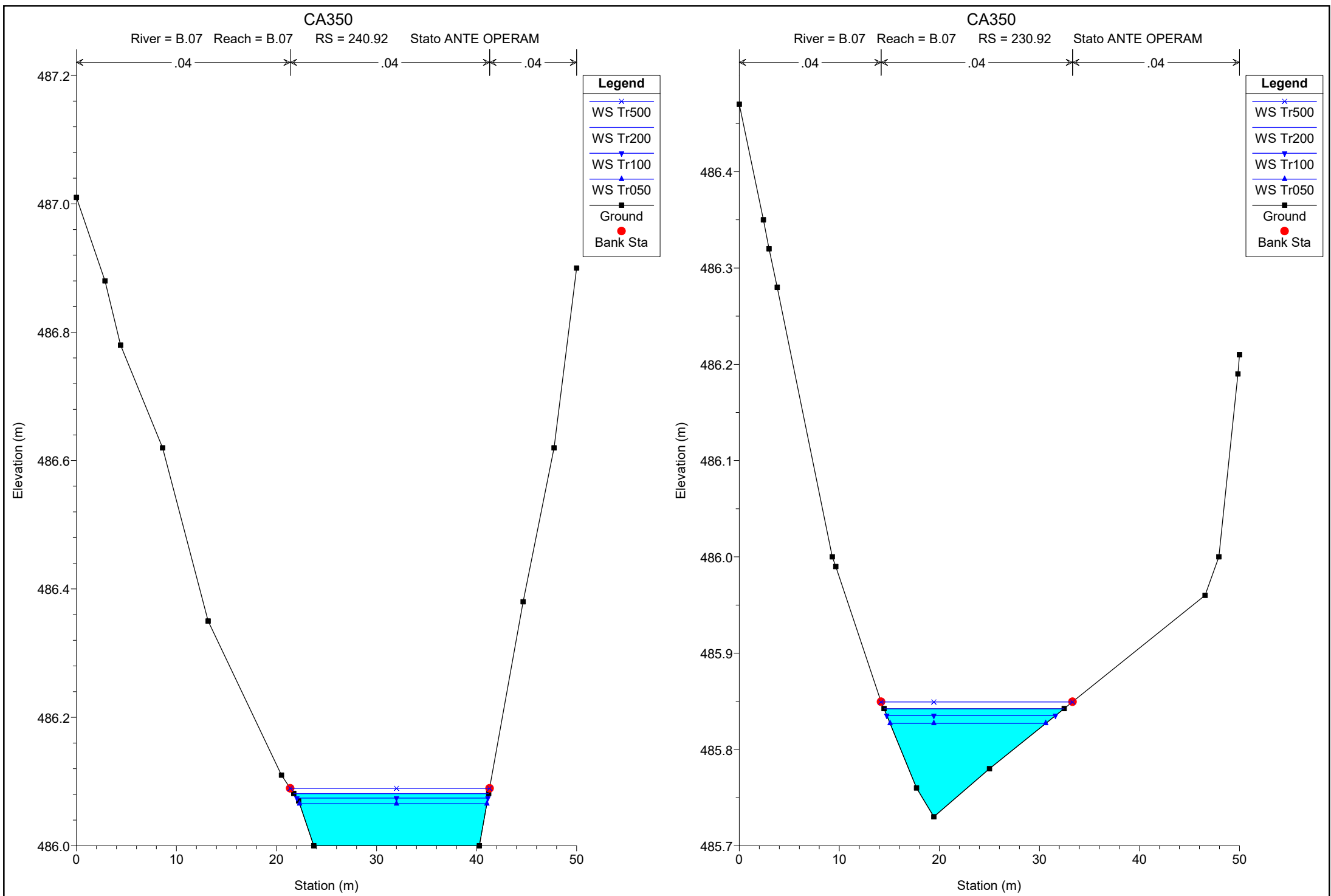


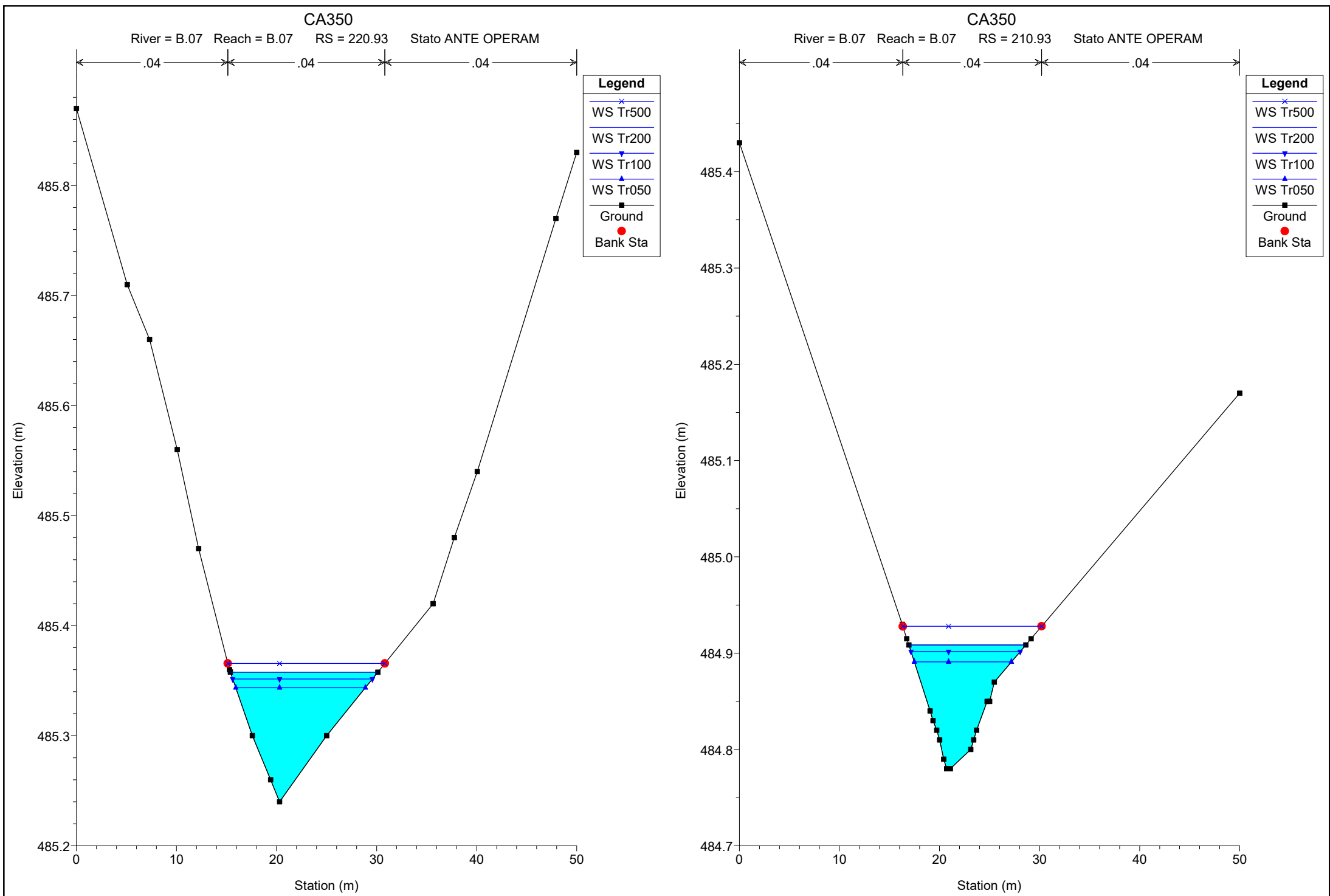




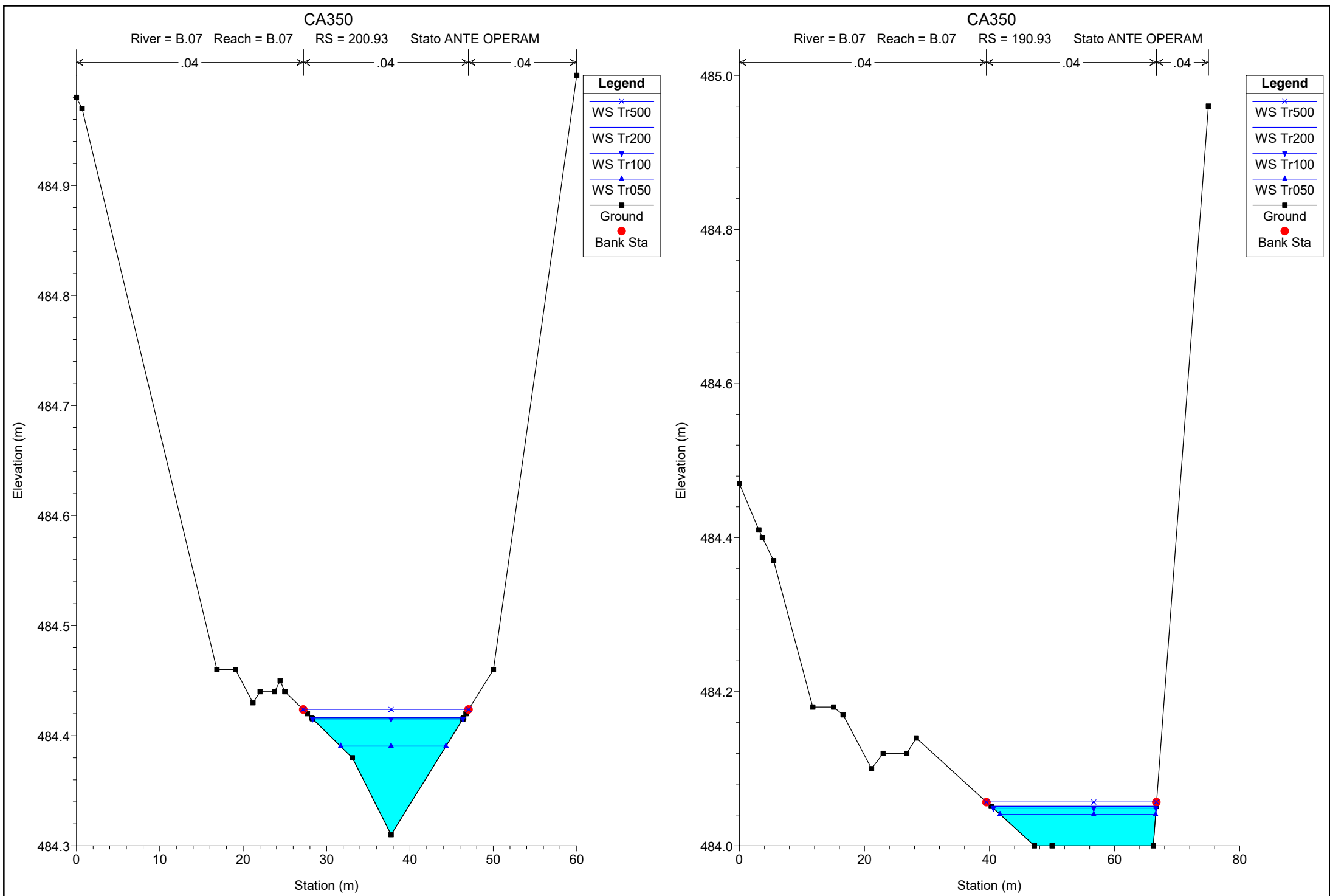


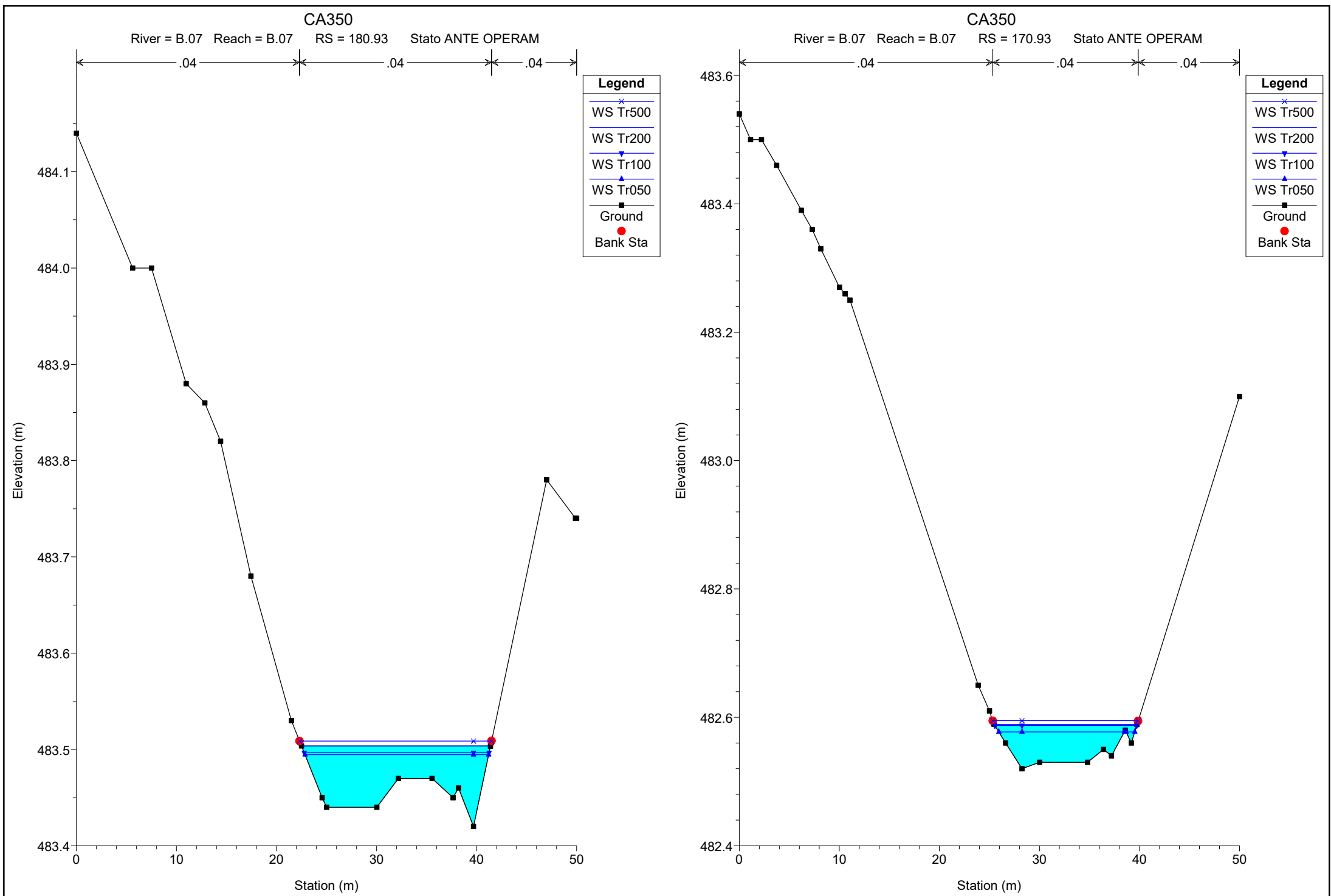


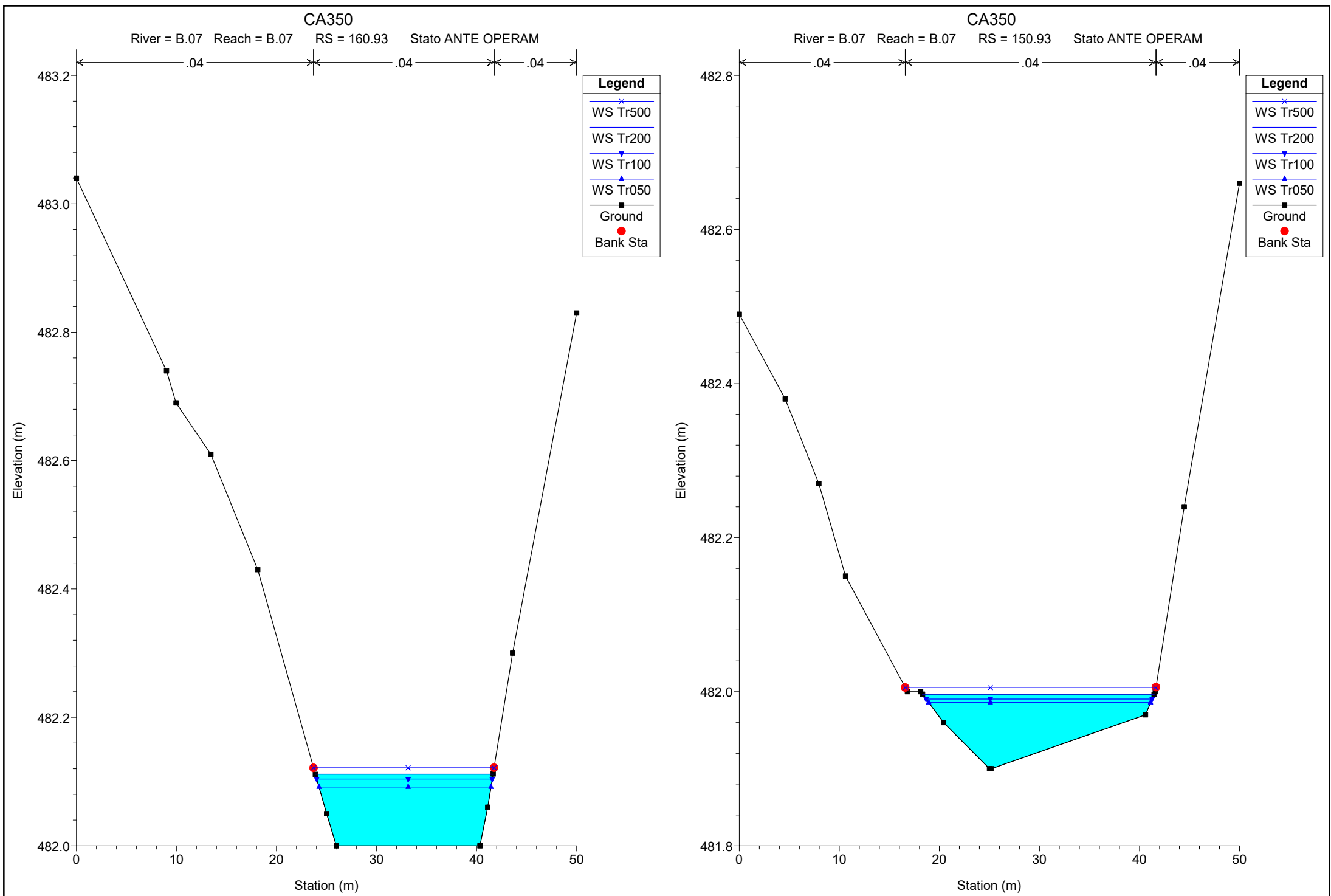


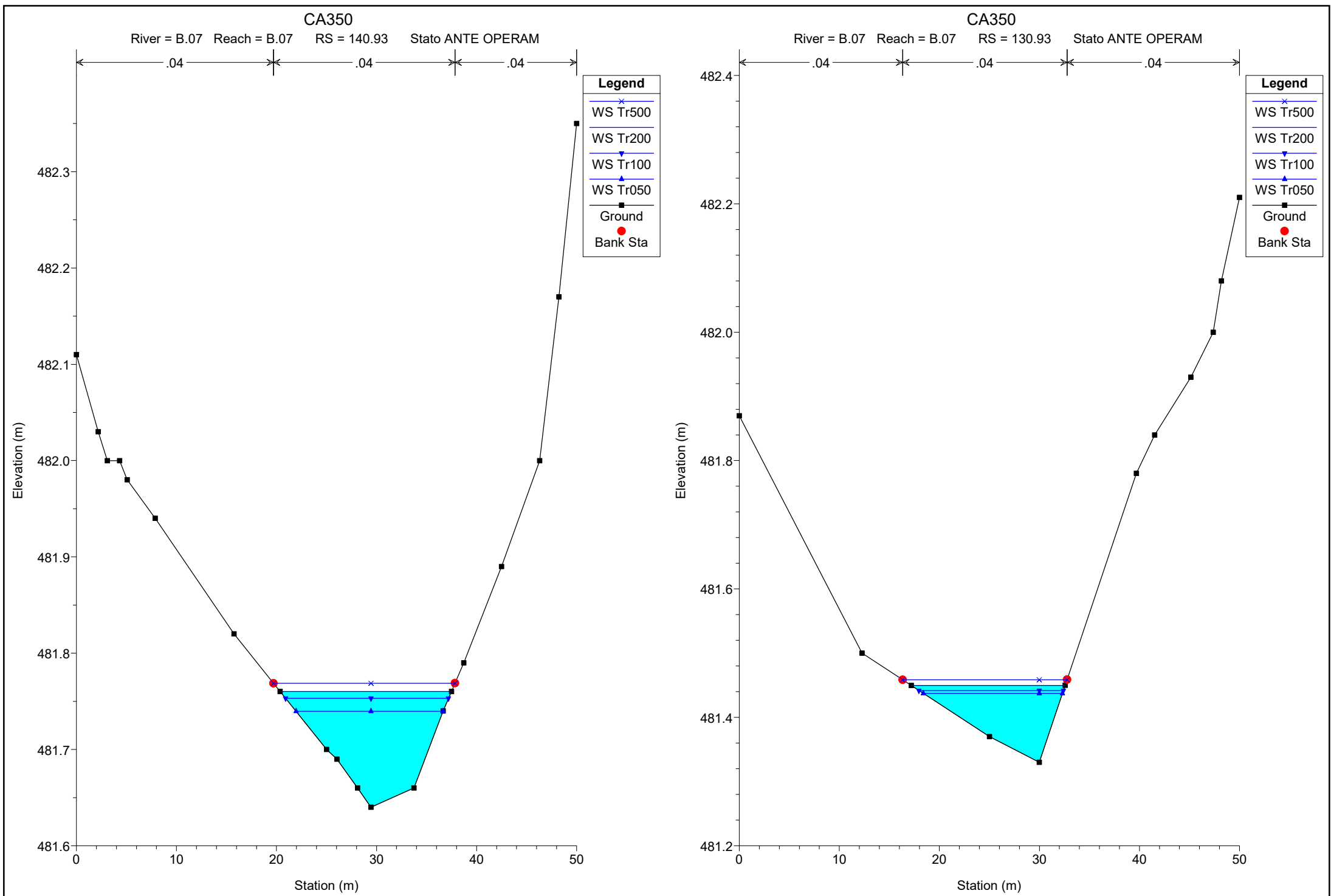


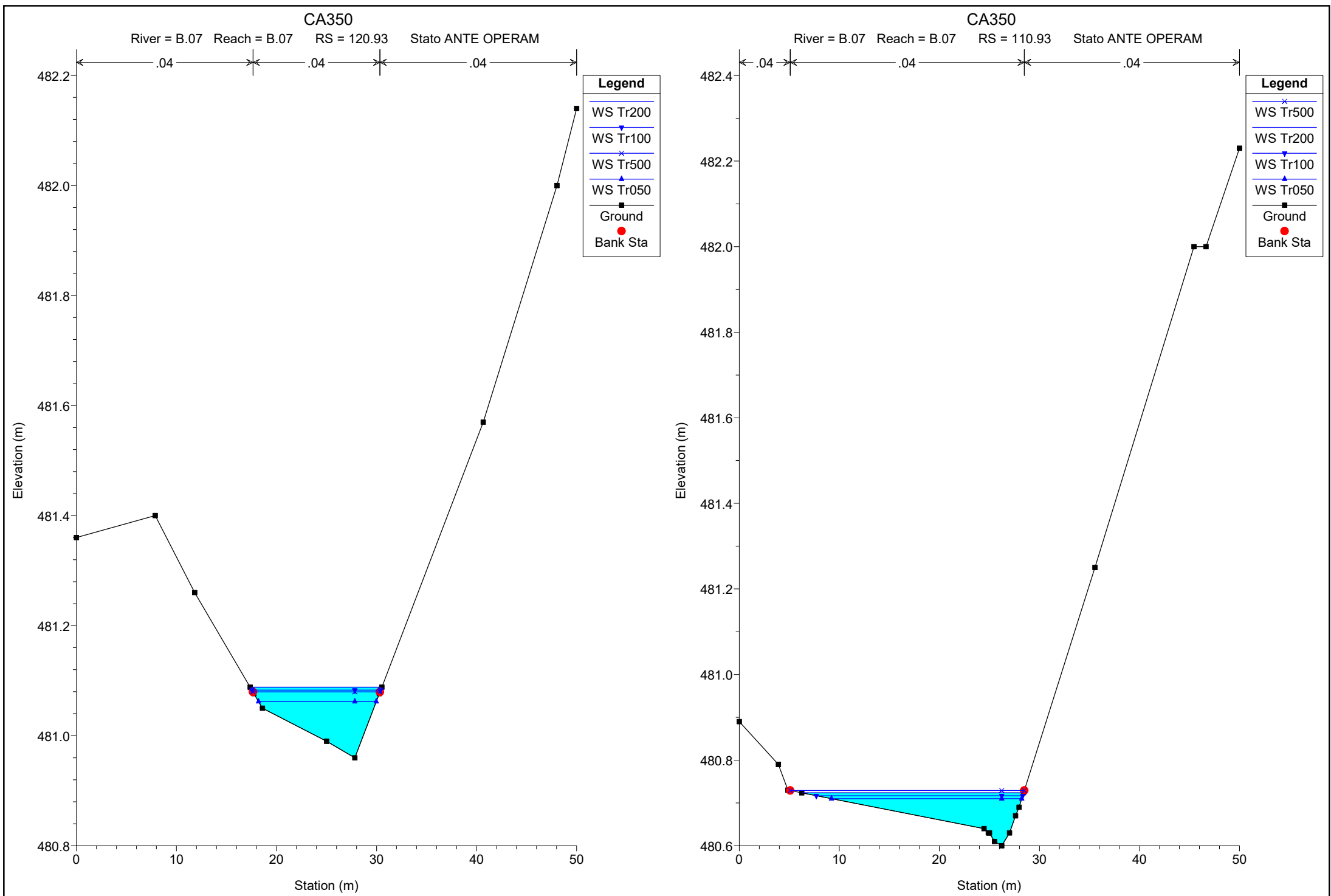


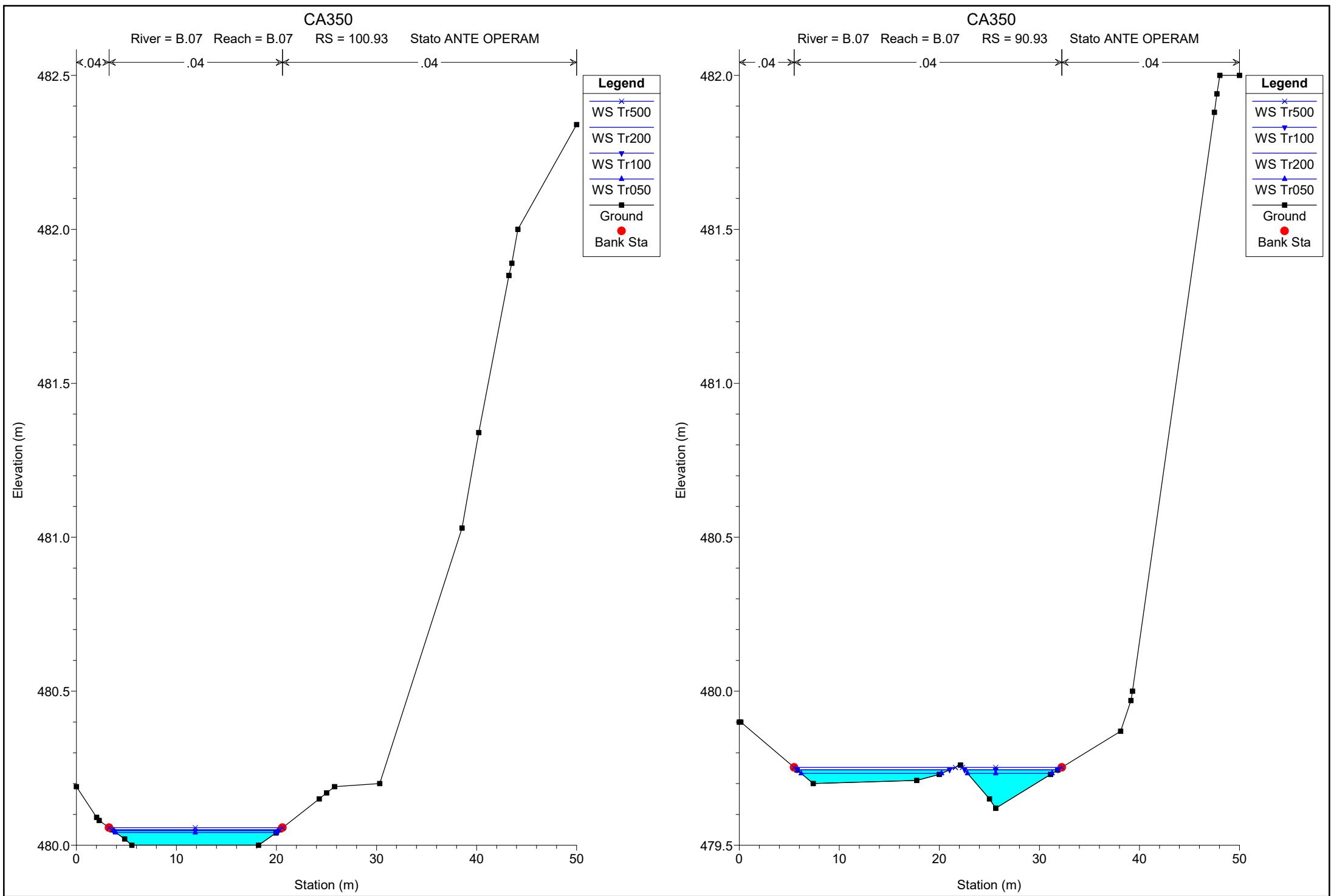


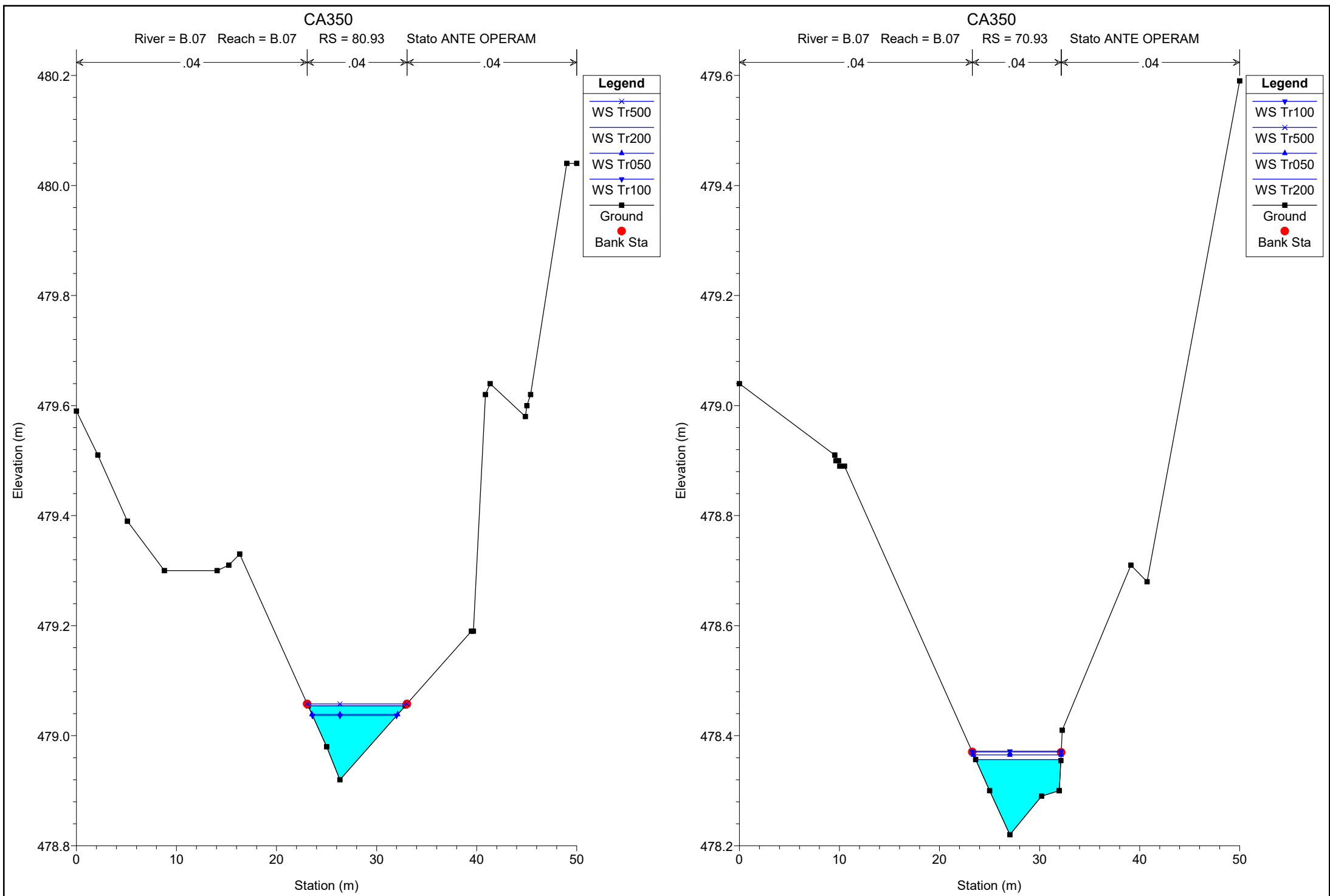


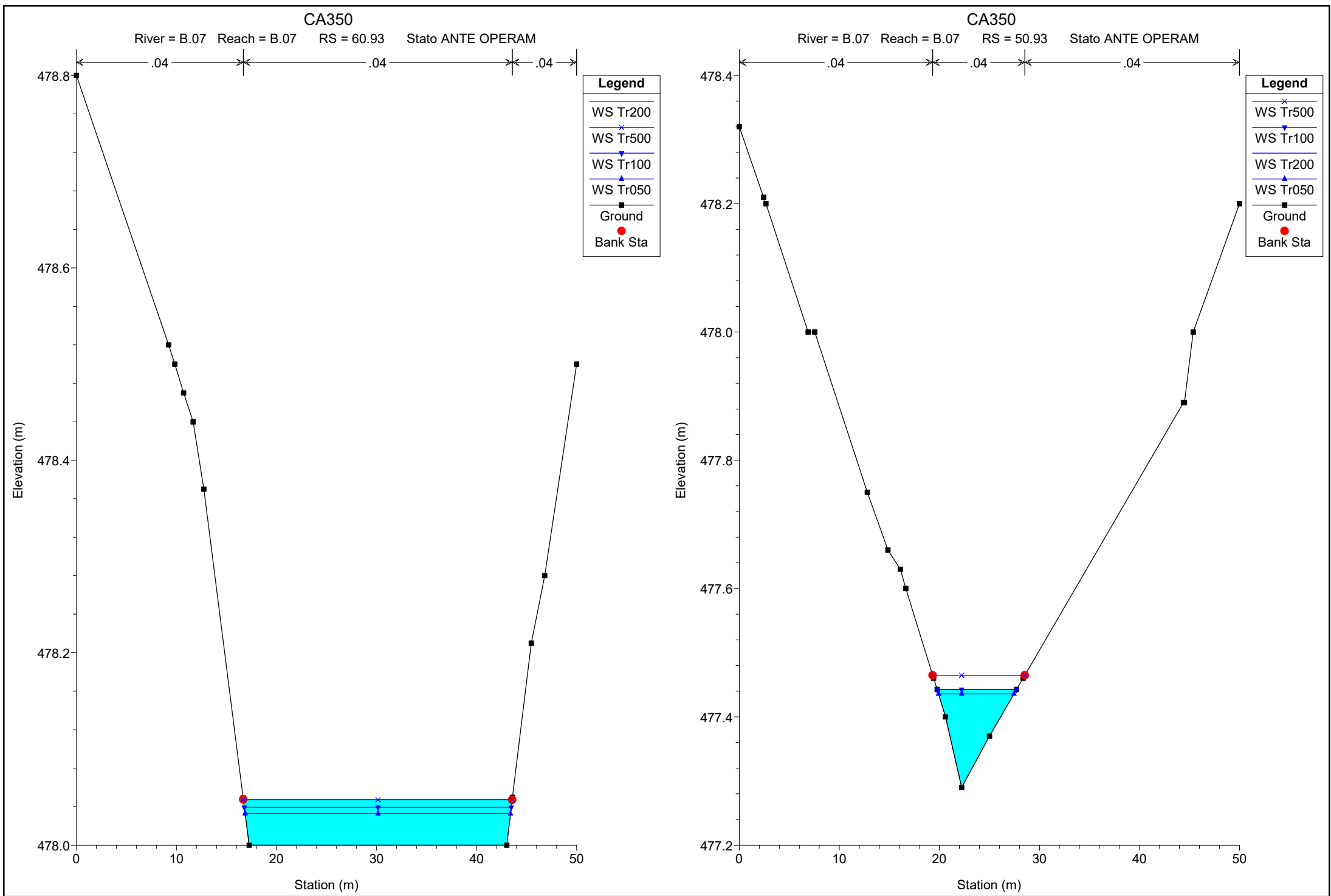




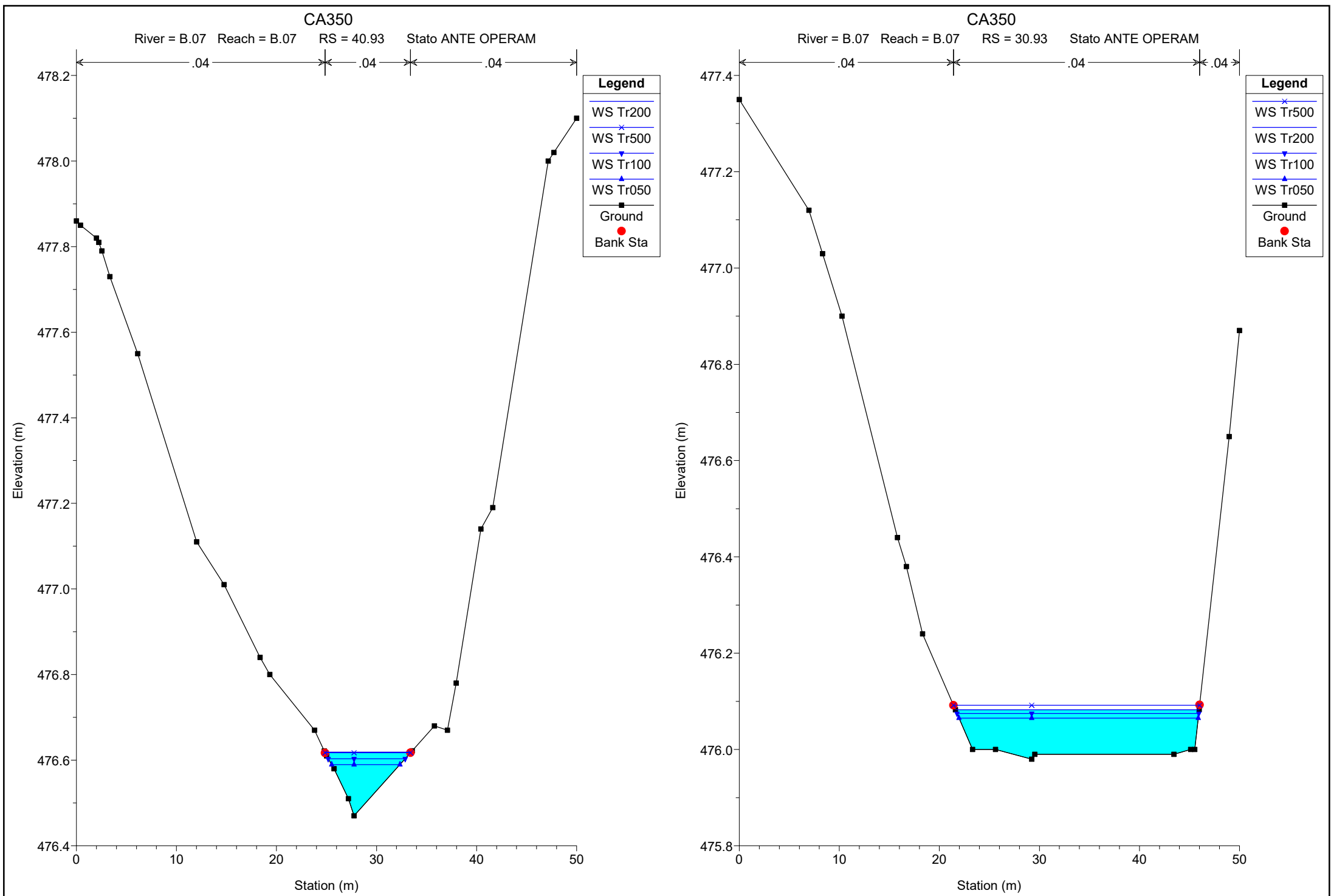


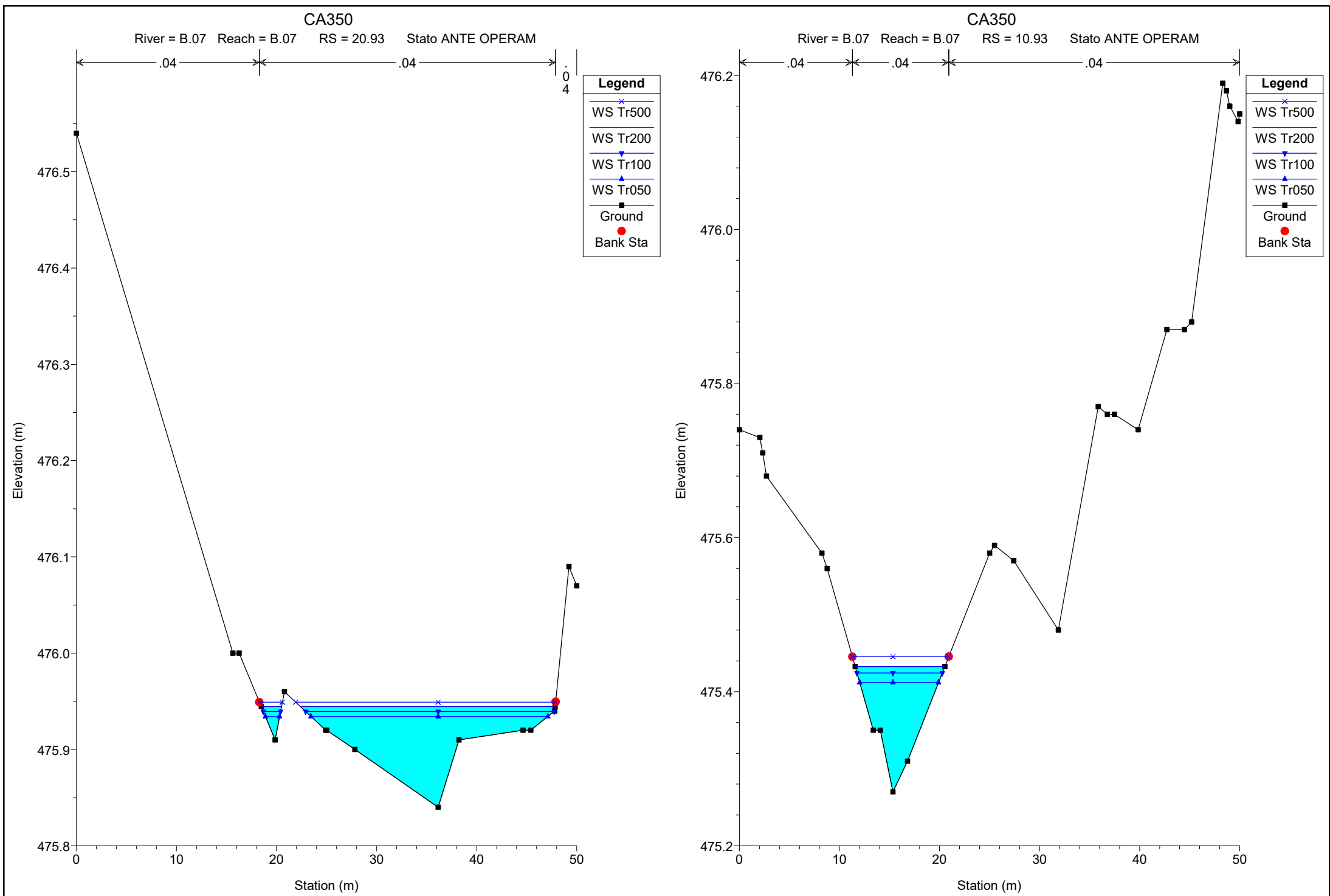






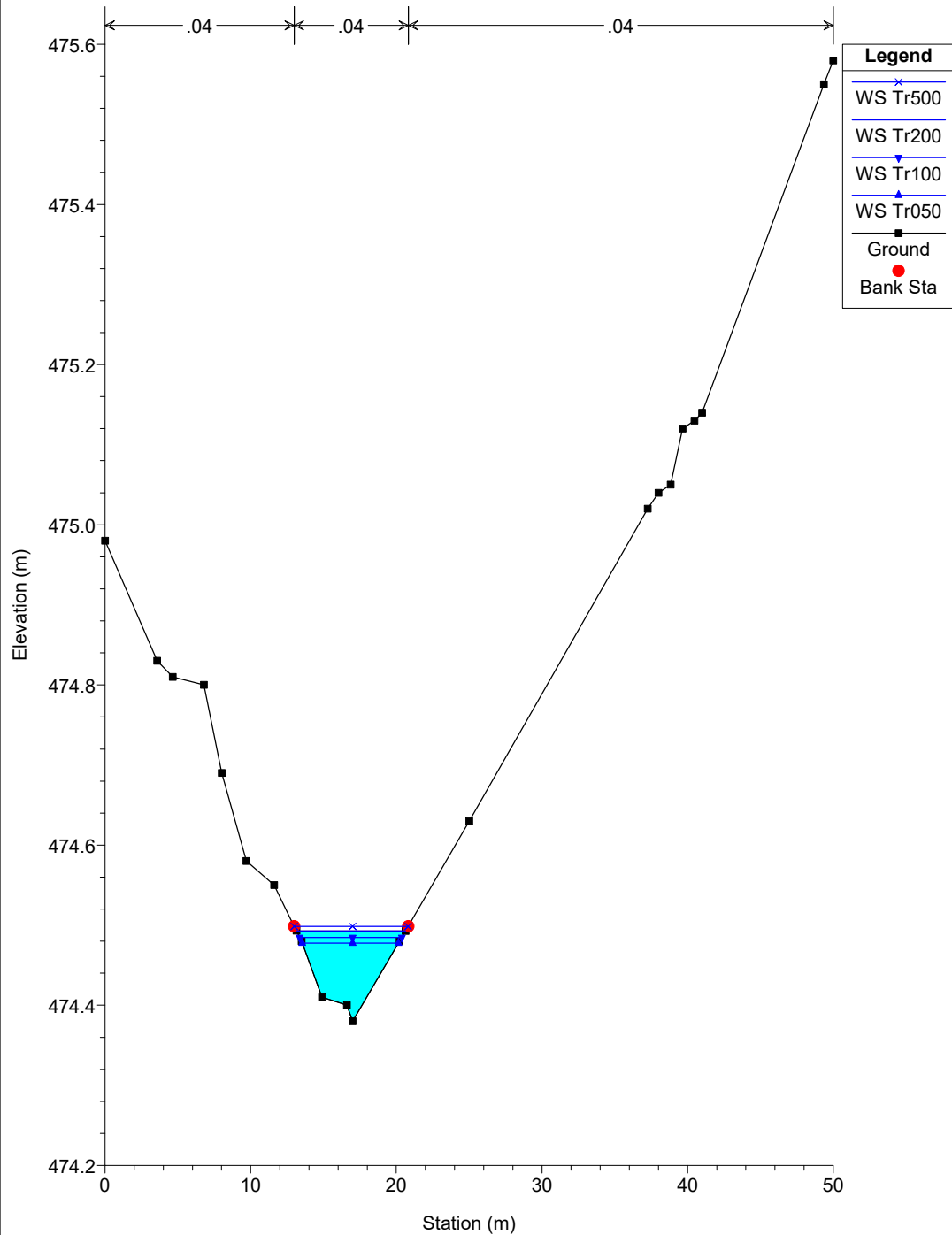


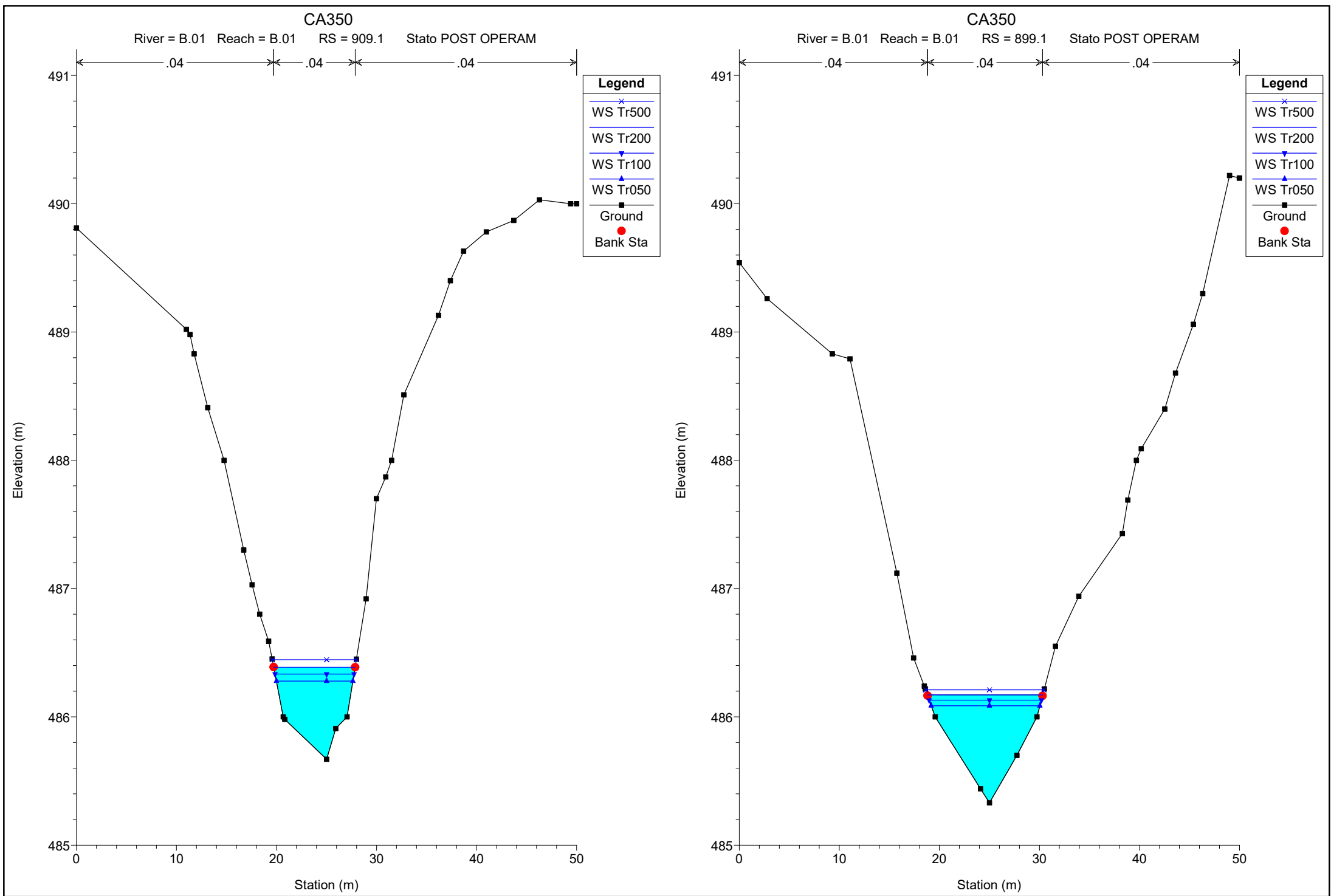


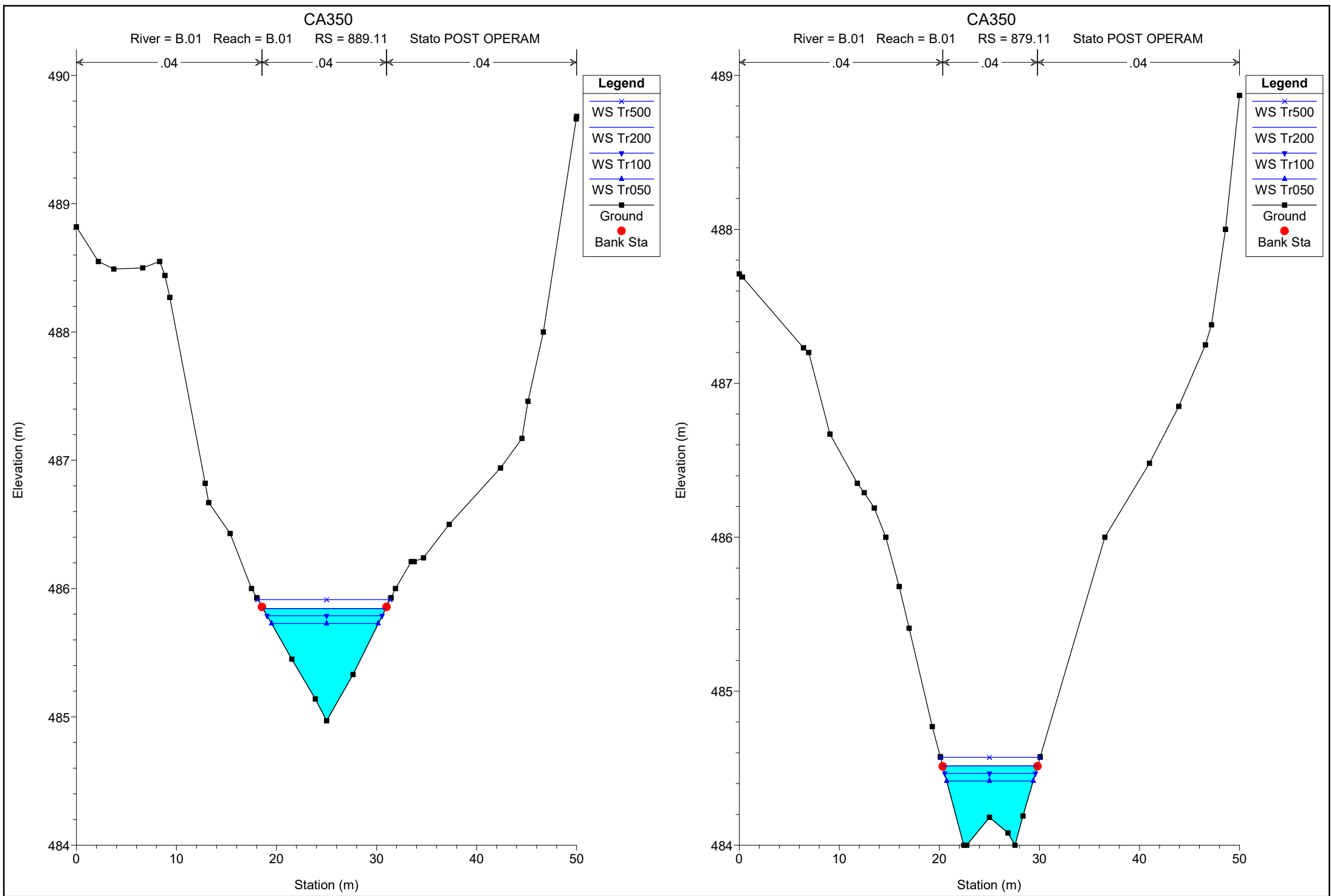


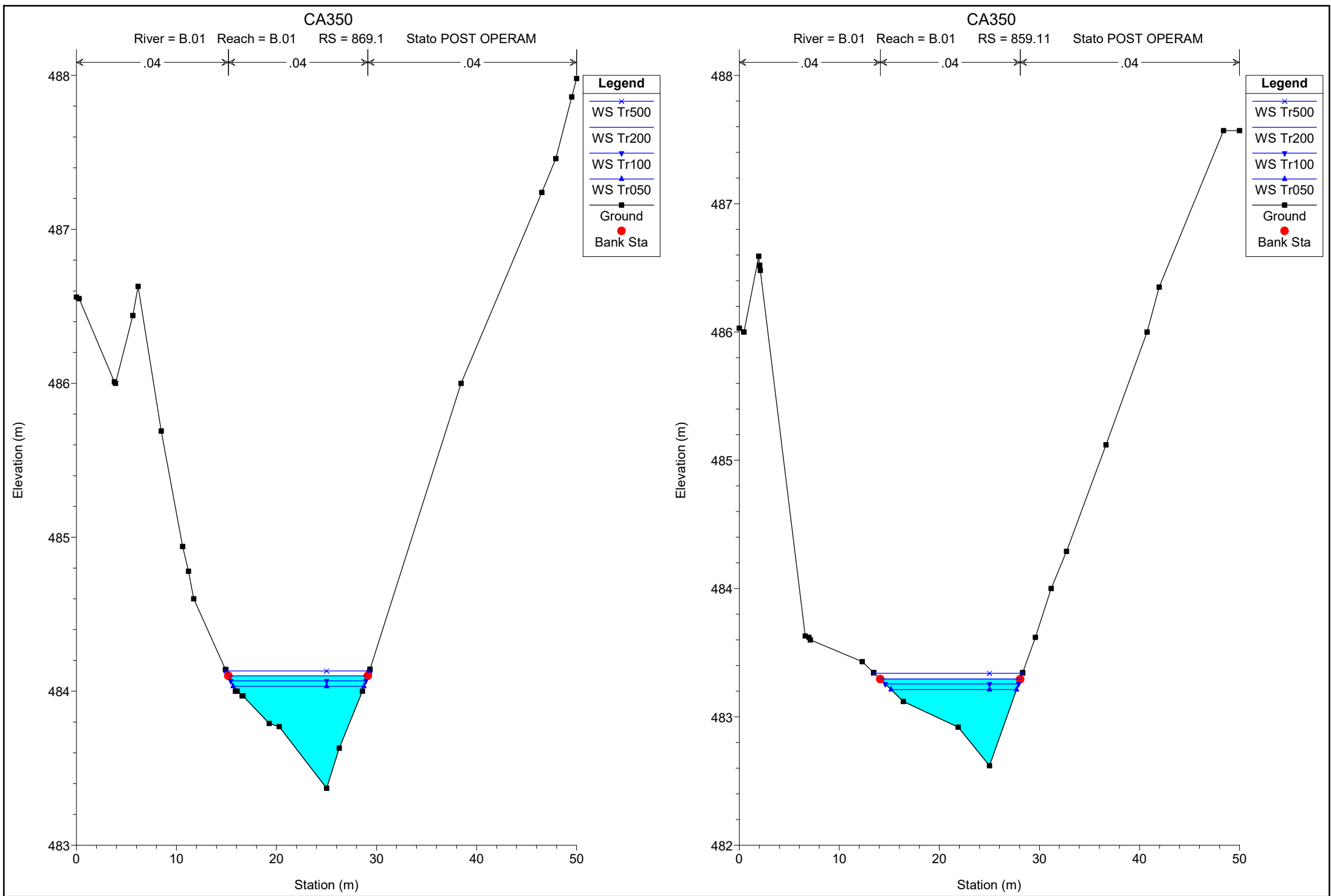
# CA350

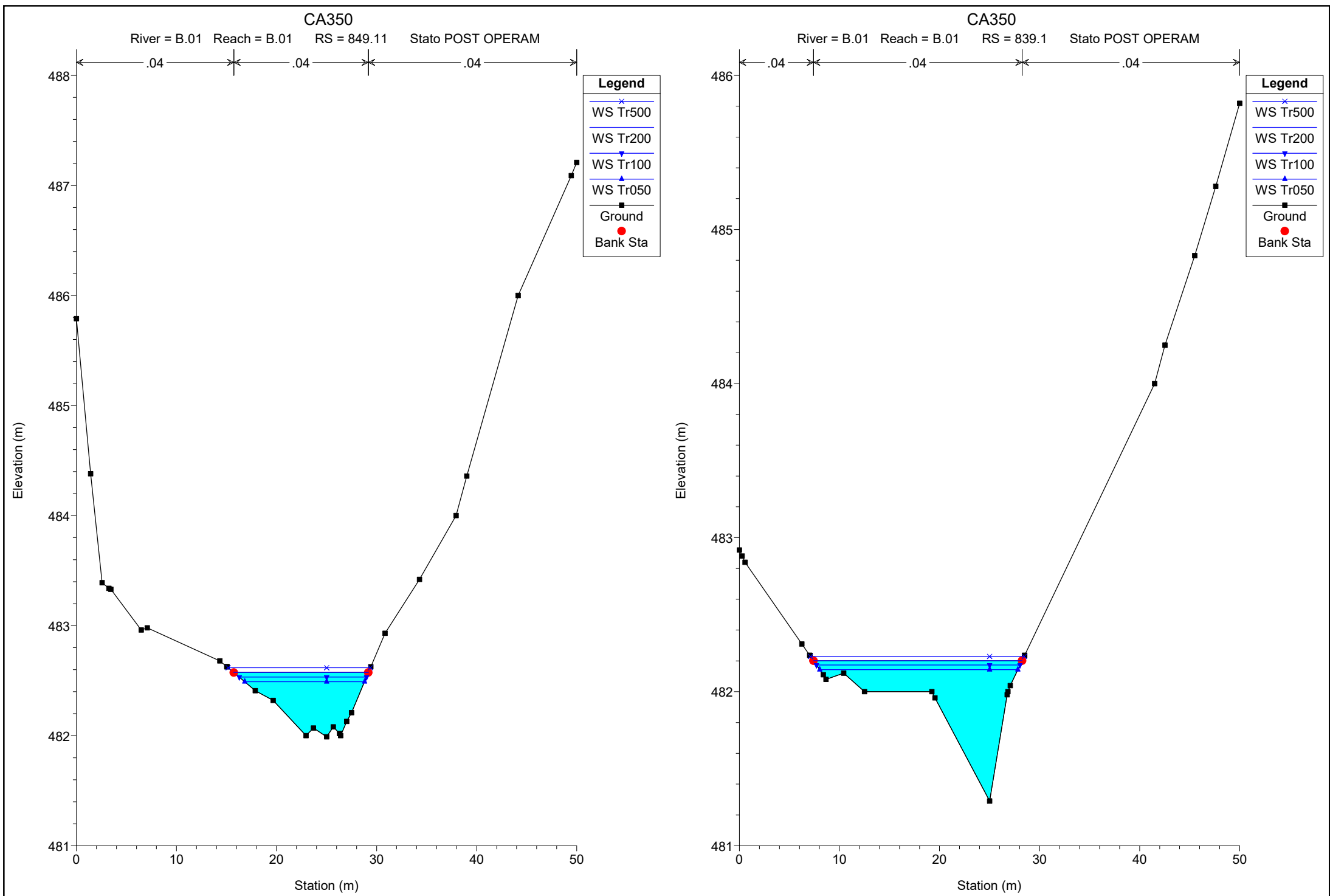
River = B.07 Reach = B.07 RS = 0.93 Stato ANTE OPERAM

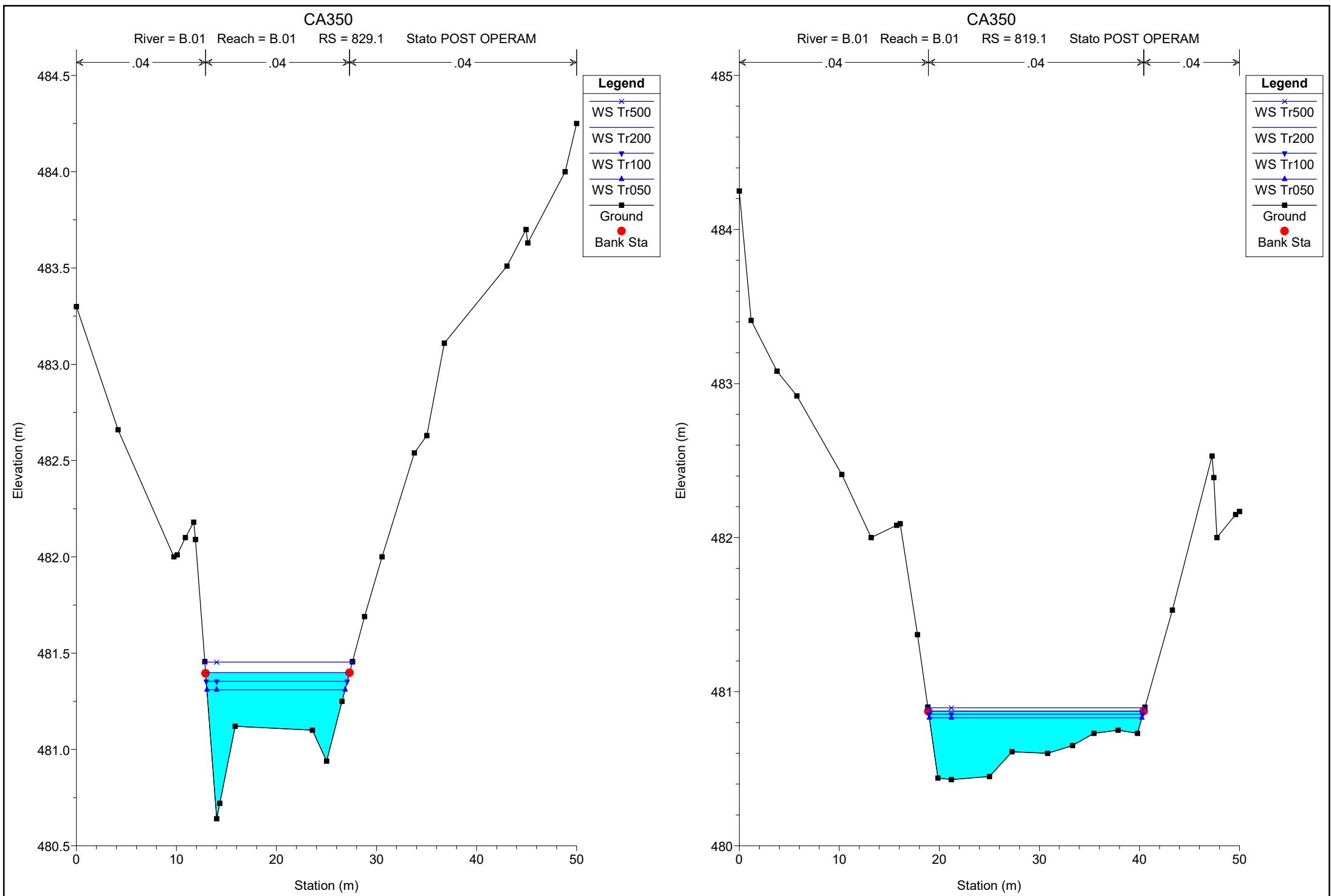




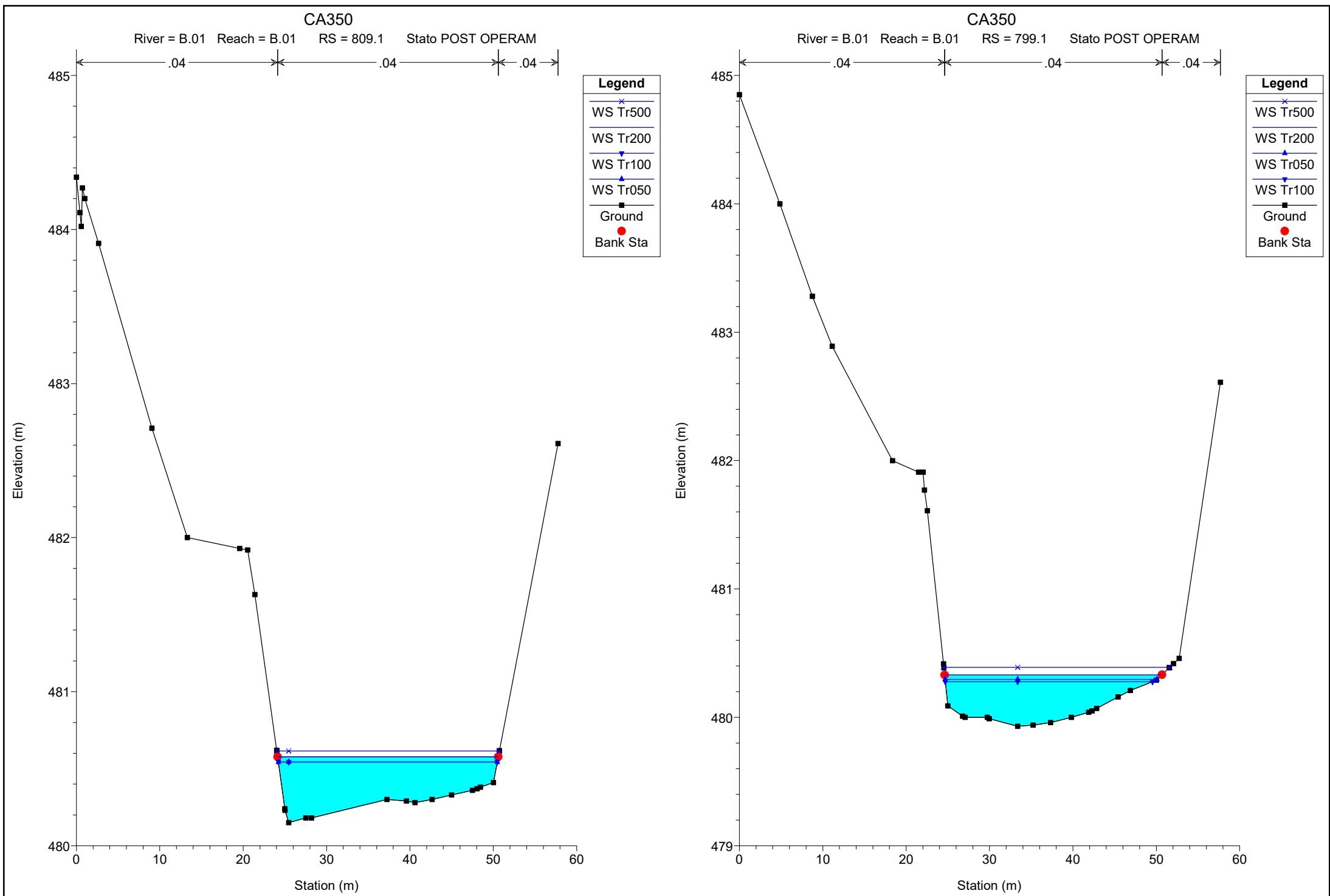


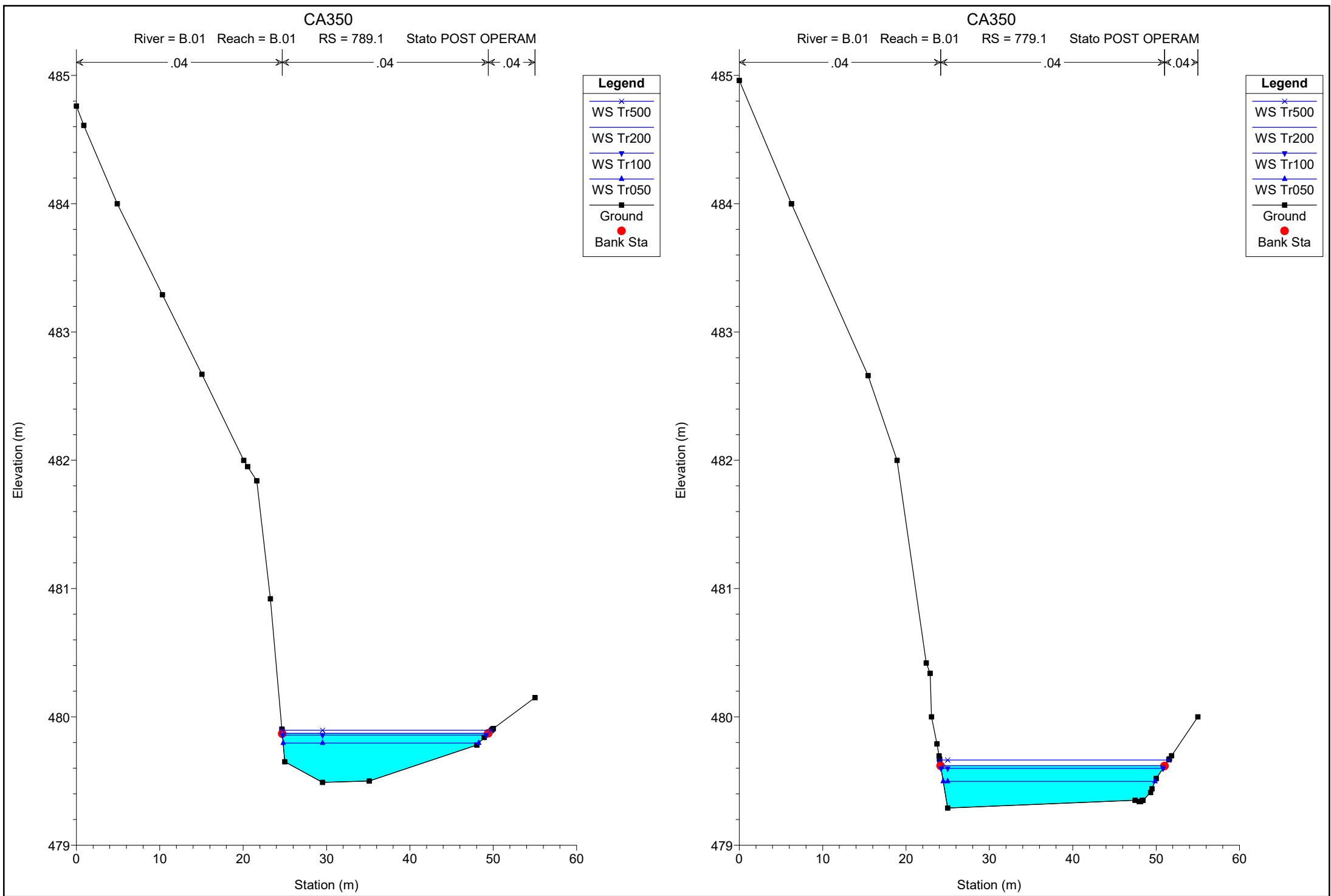


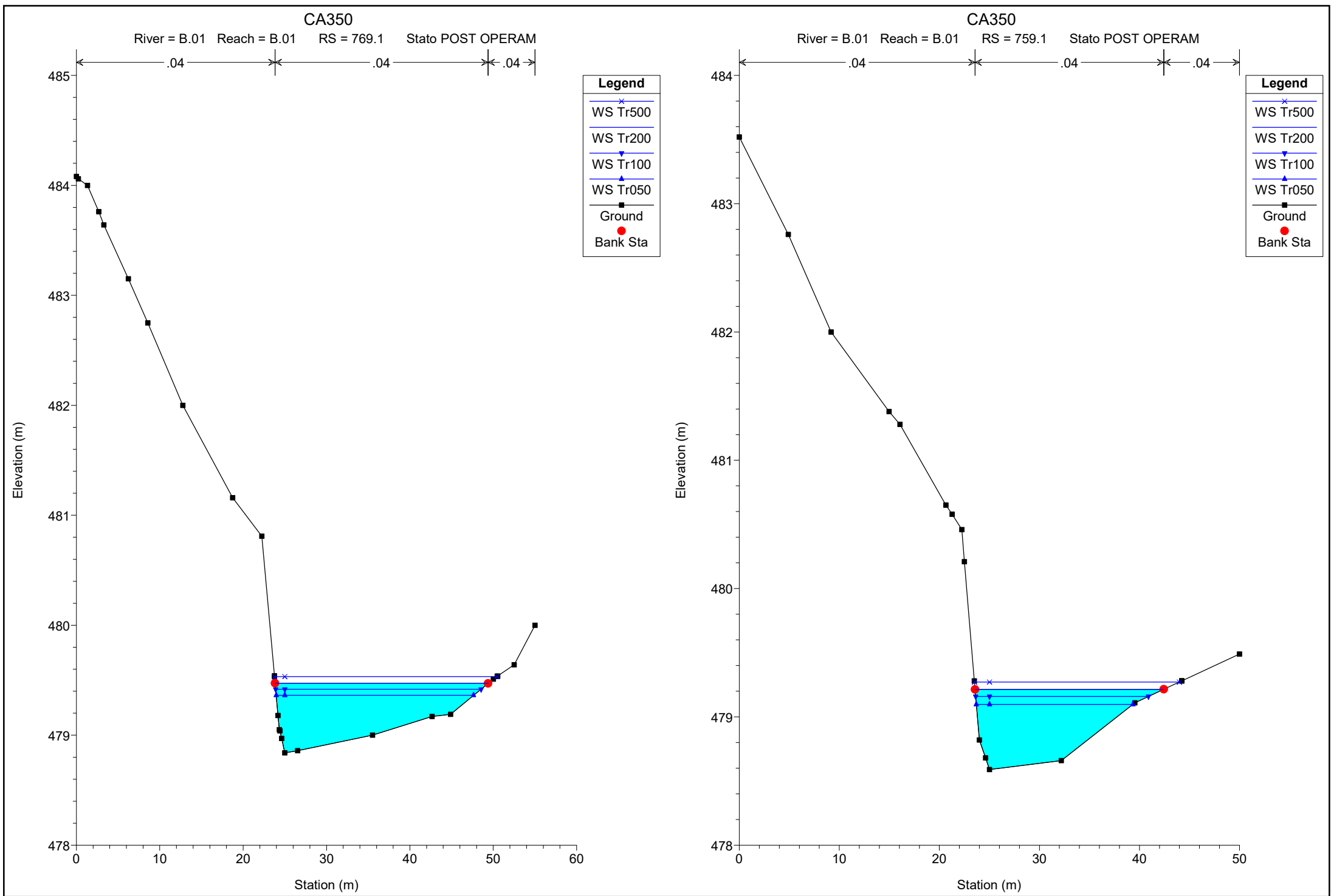


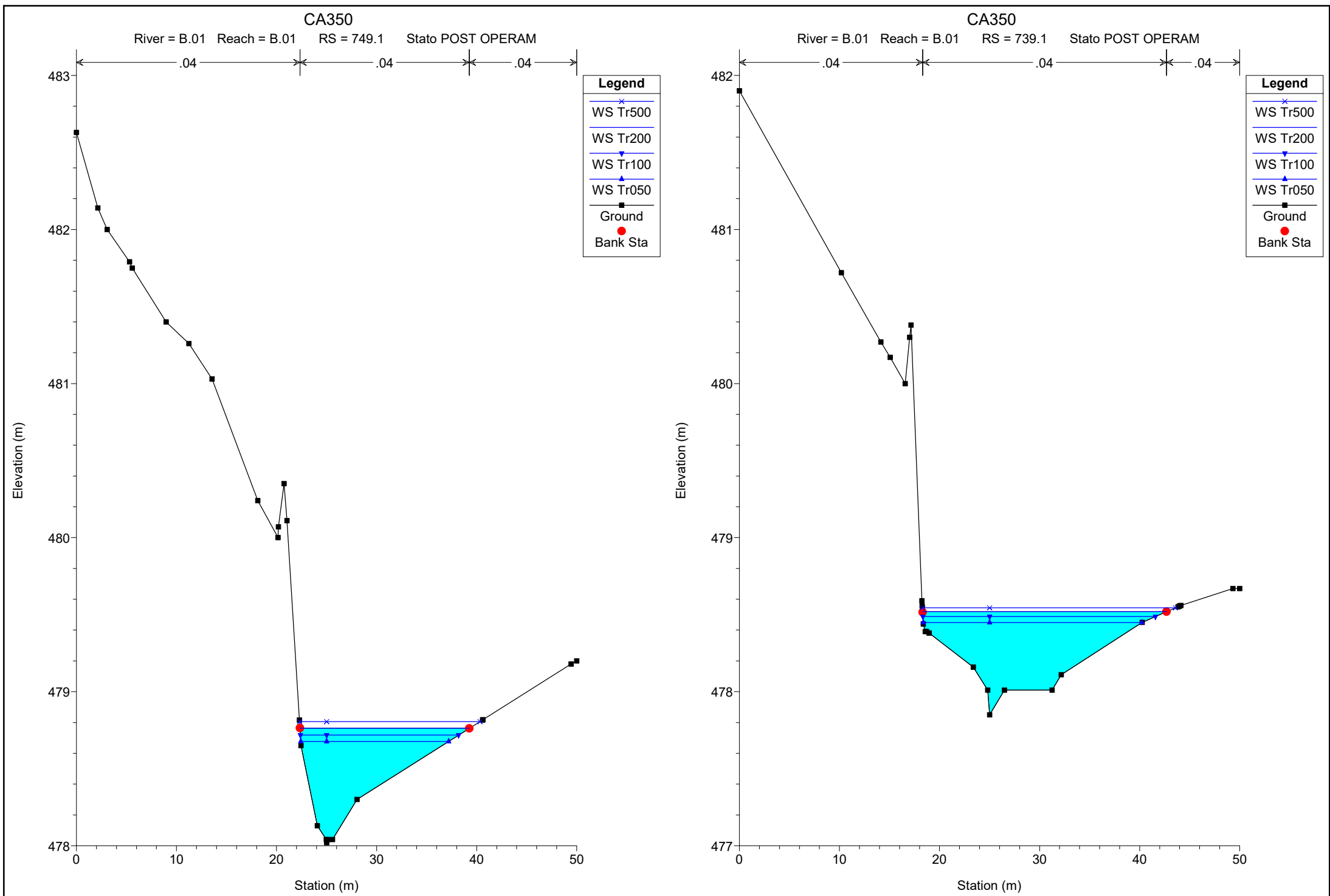


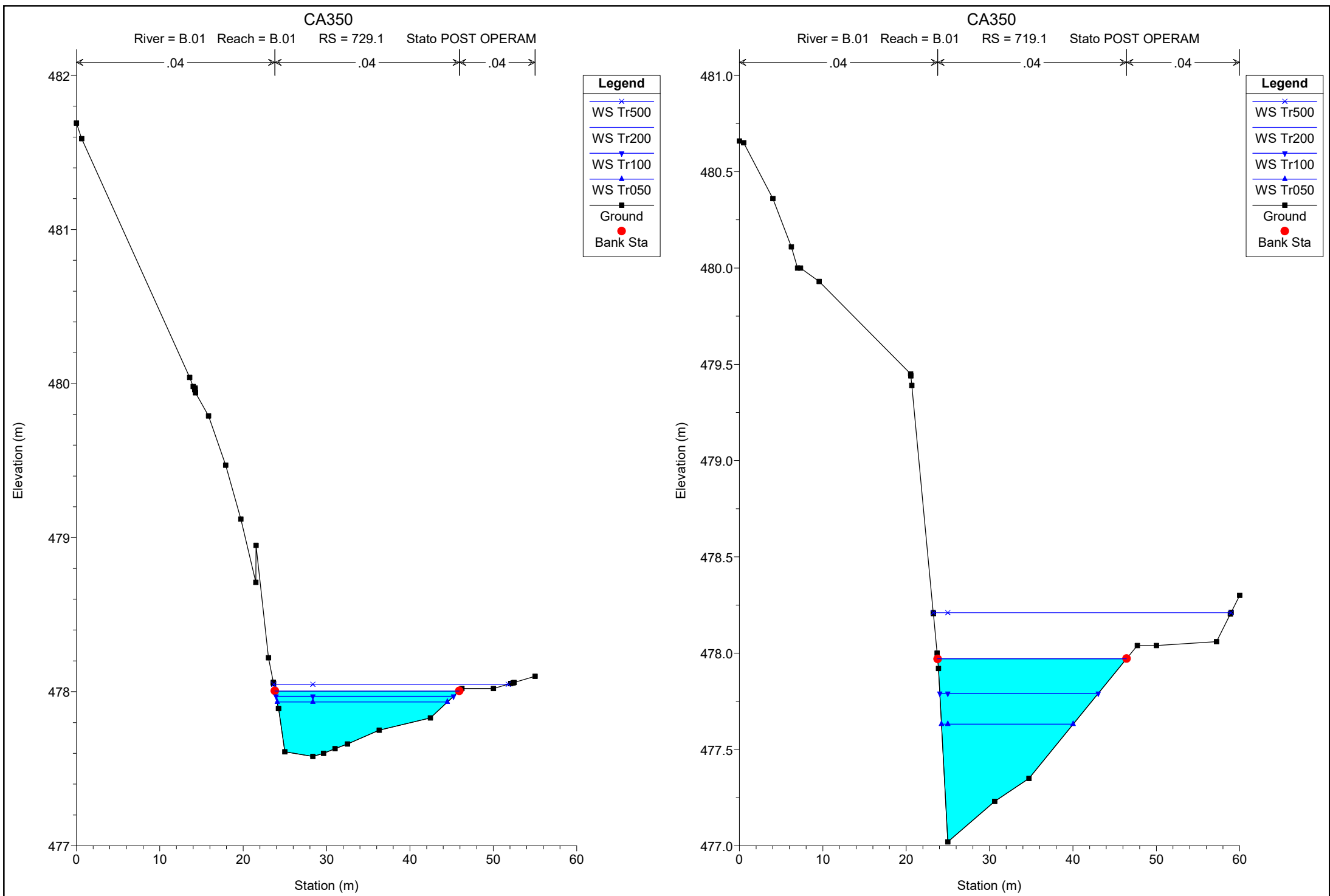


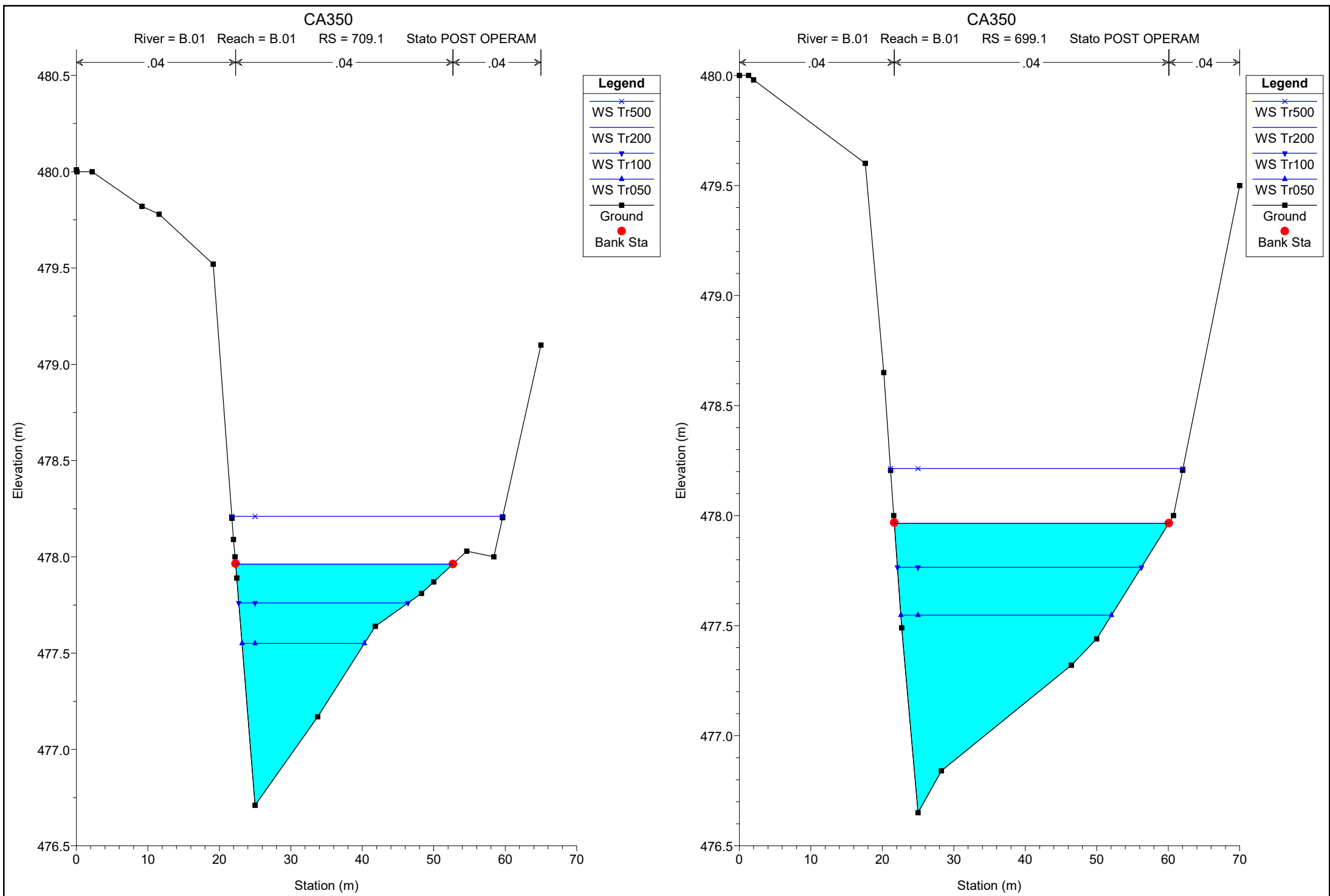


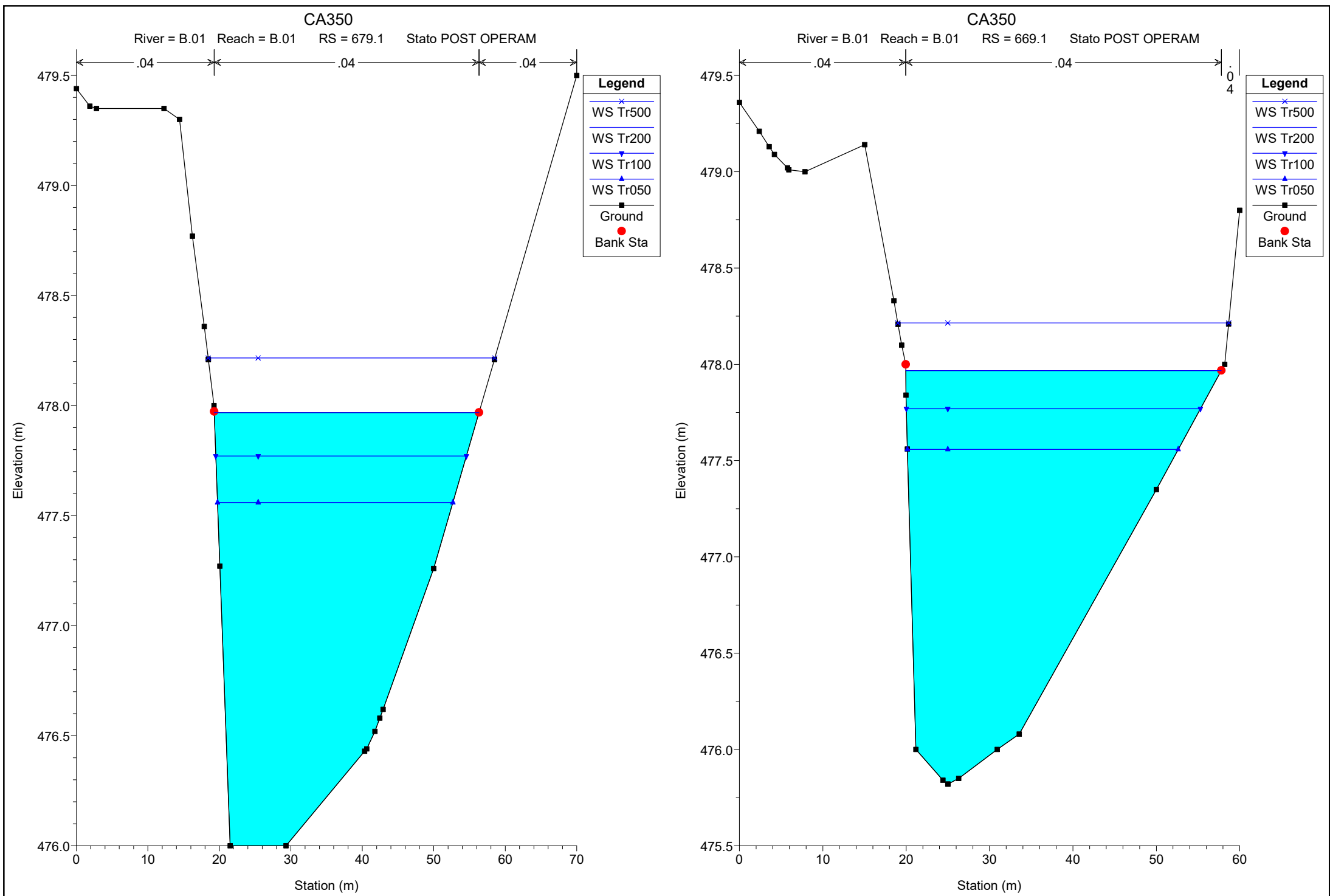






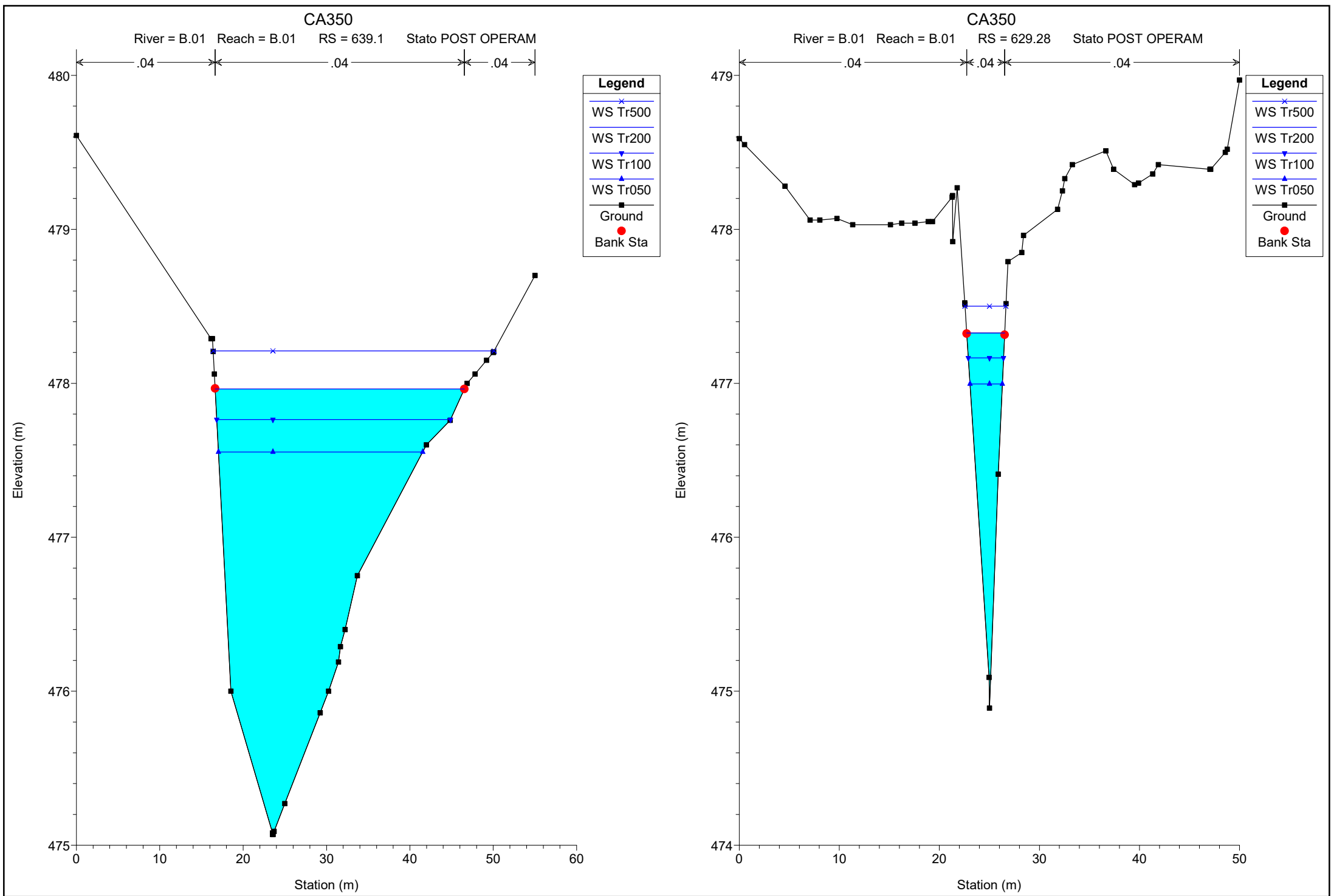


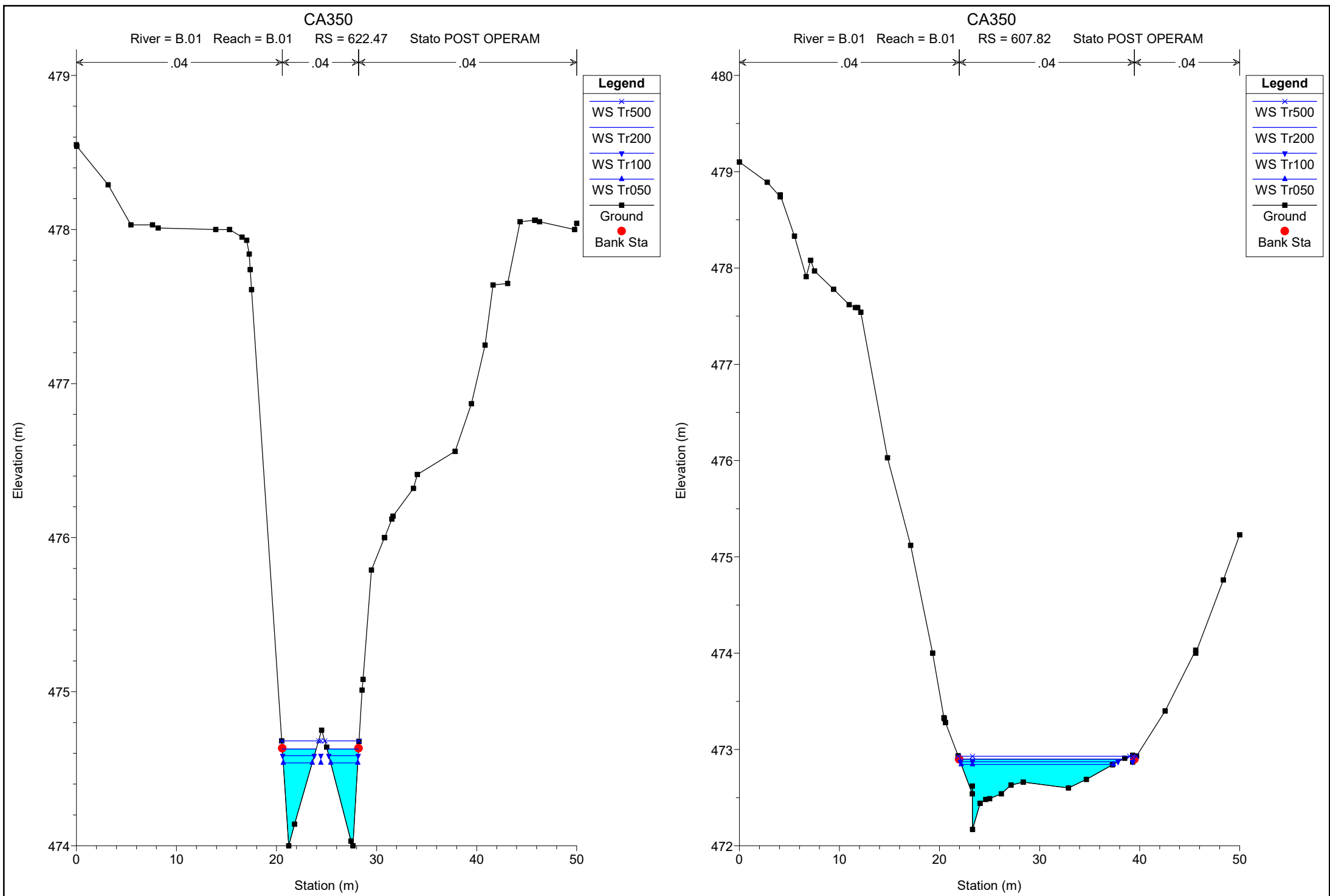


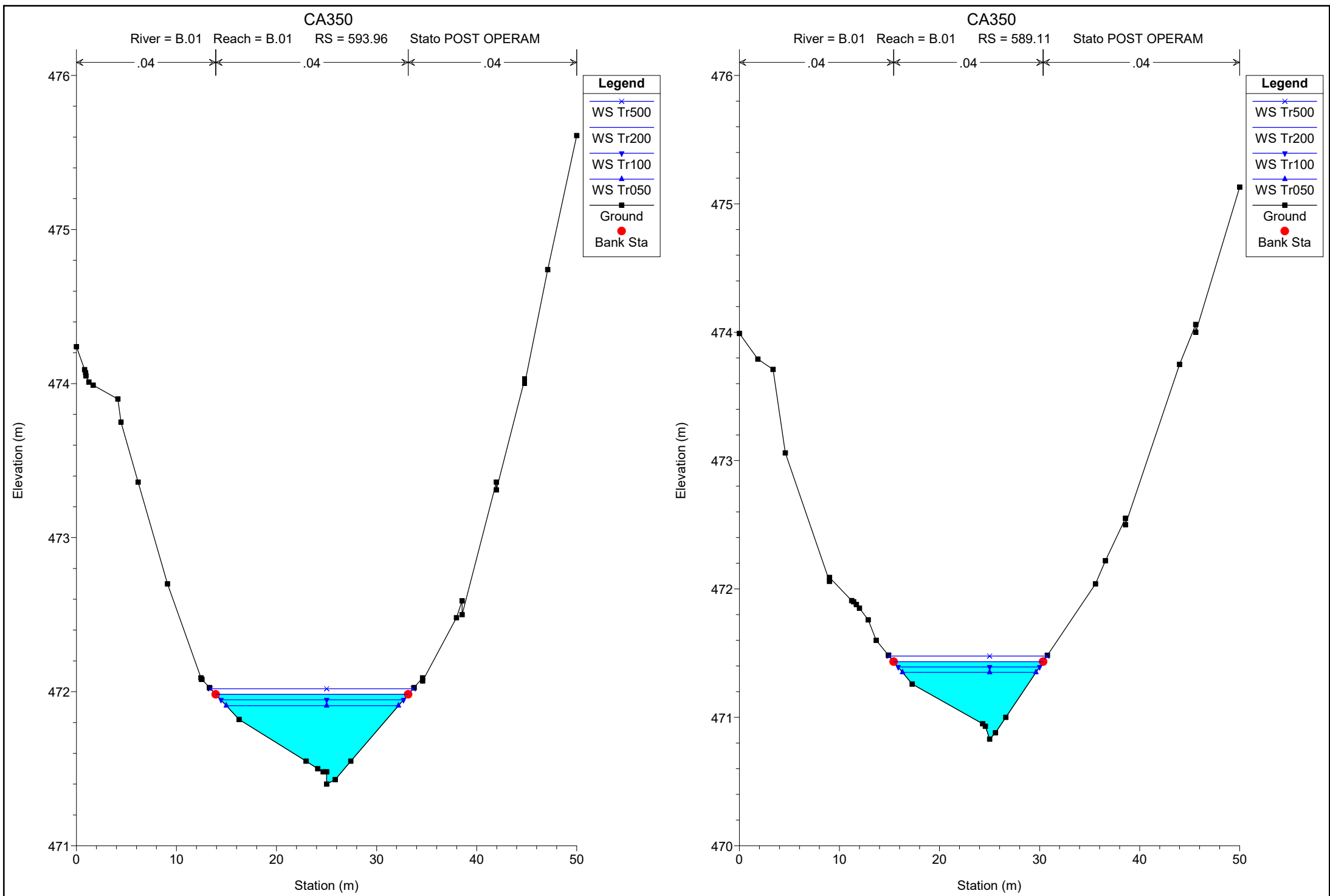


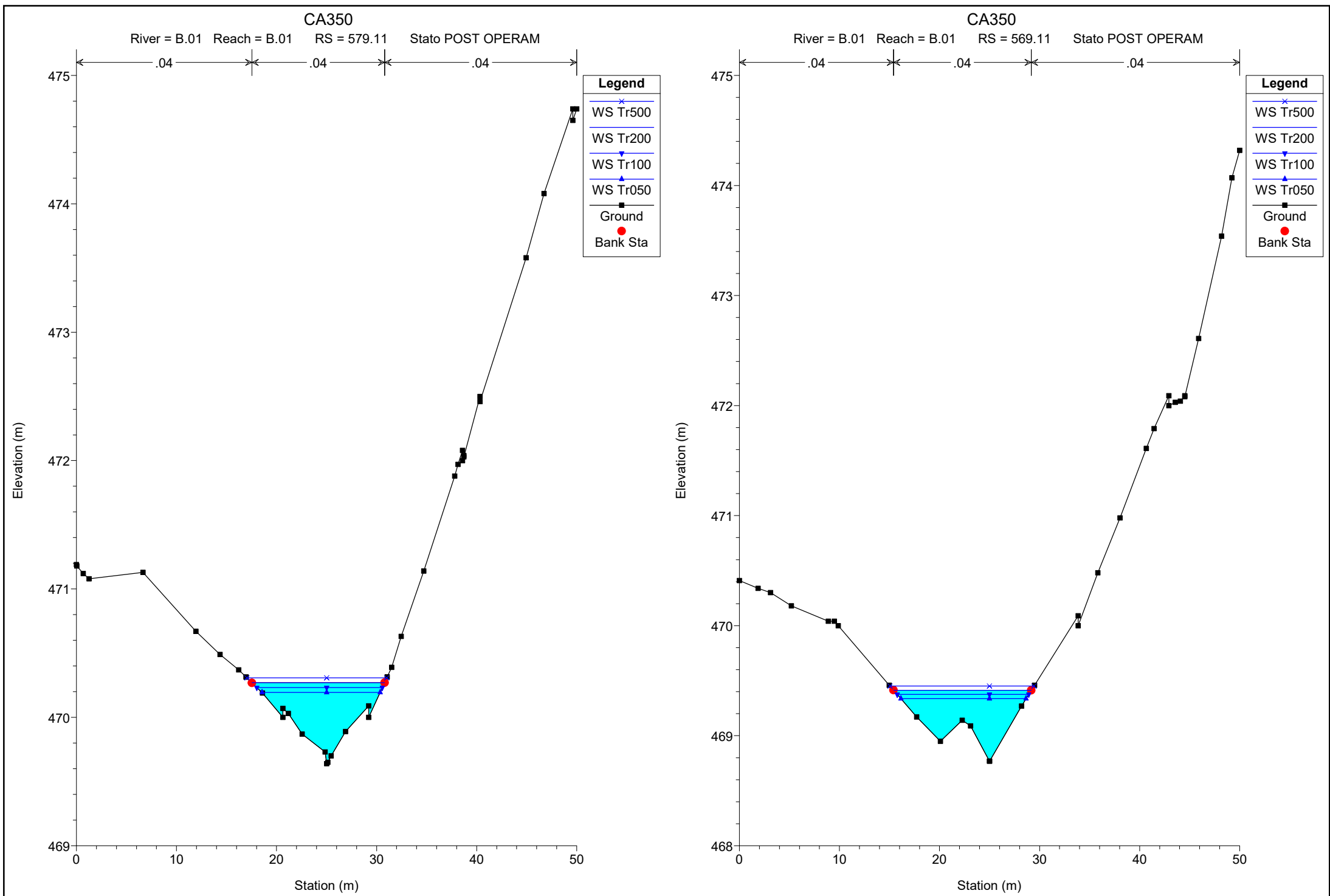


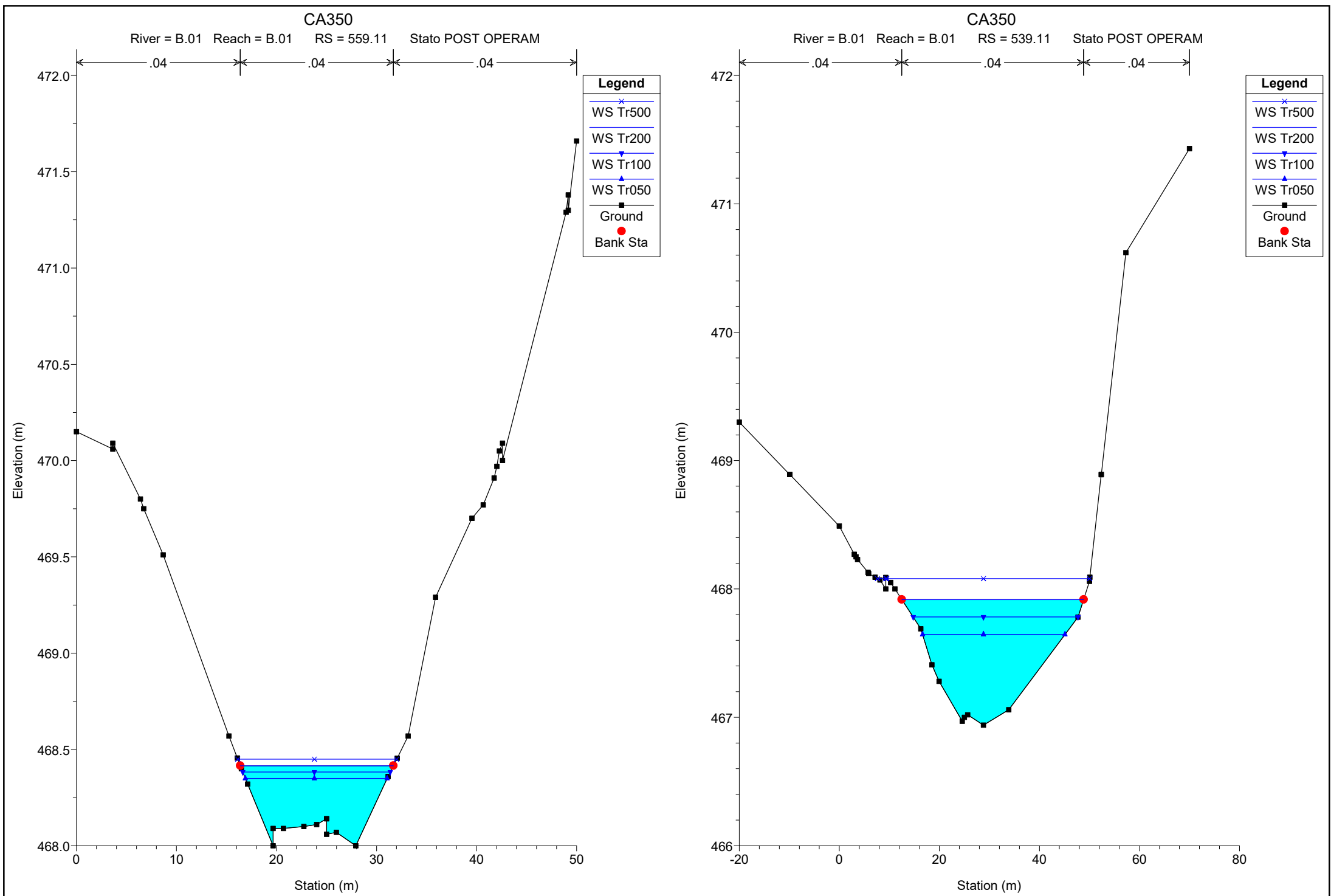


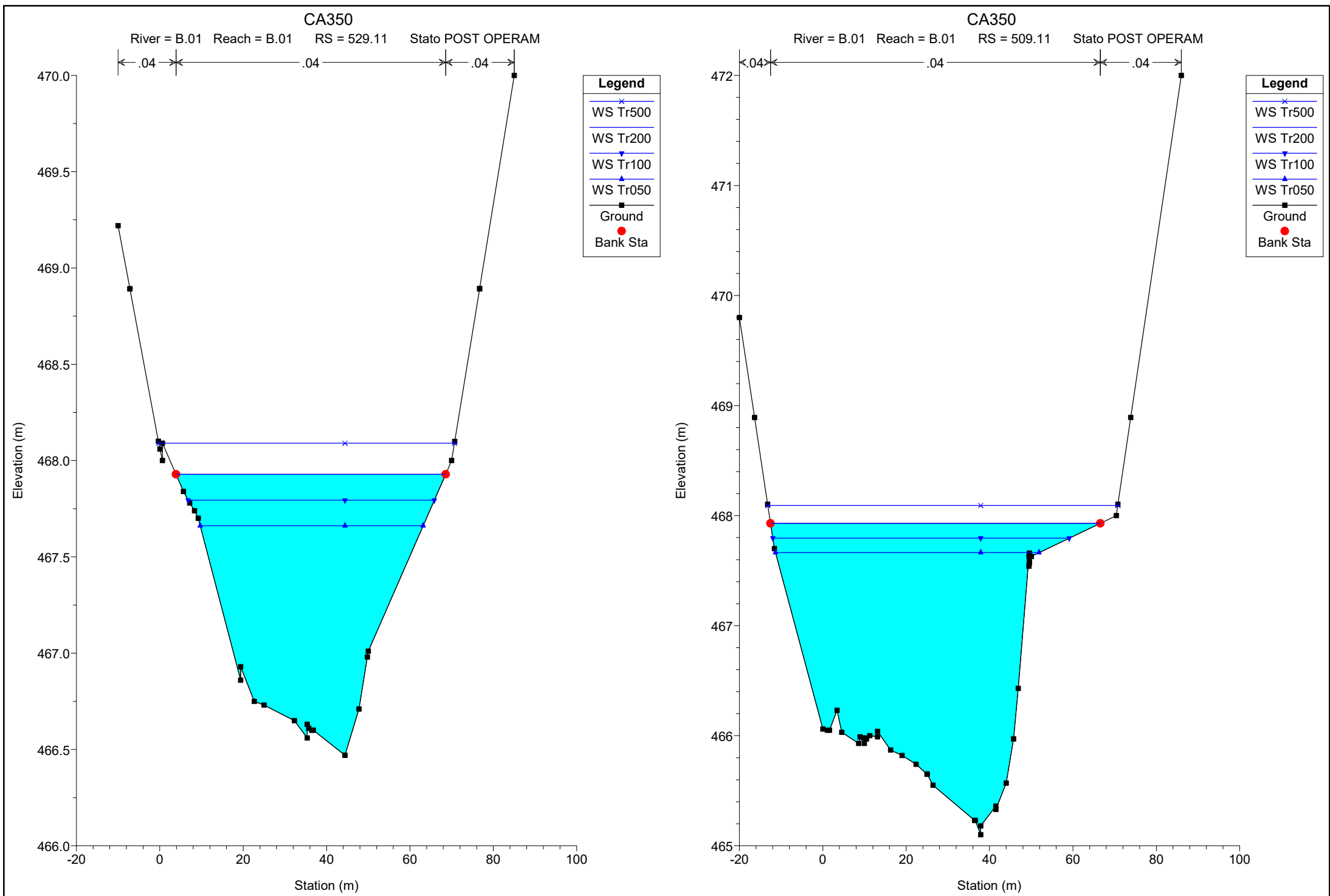


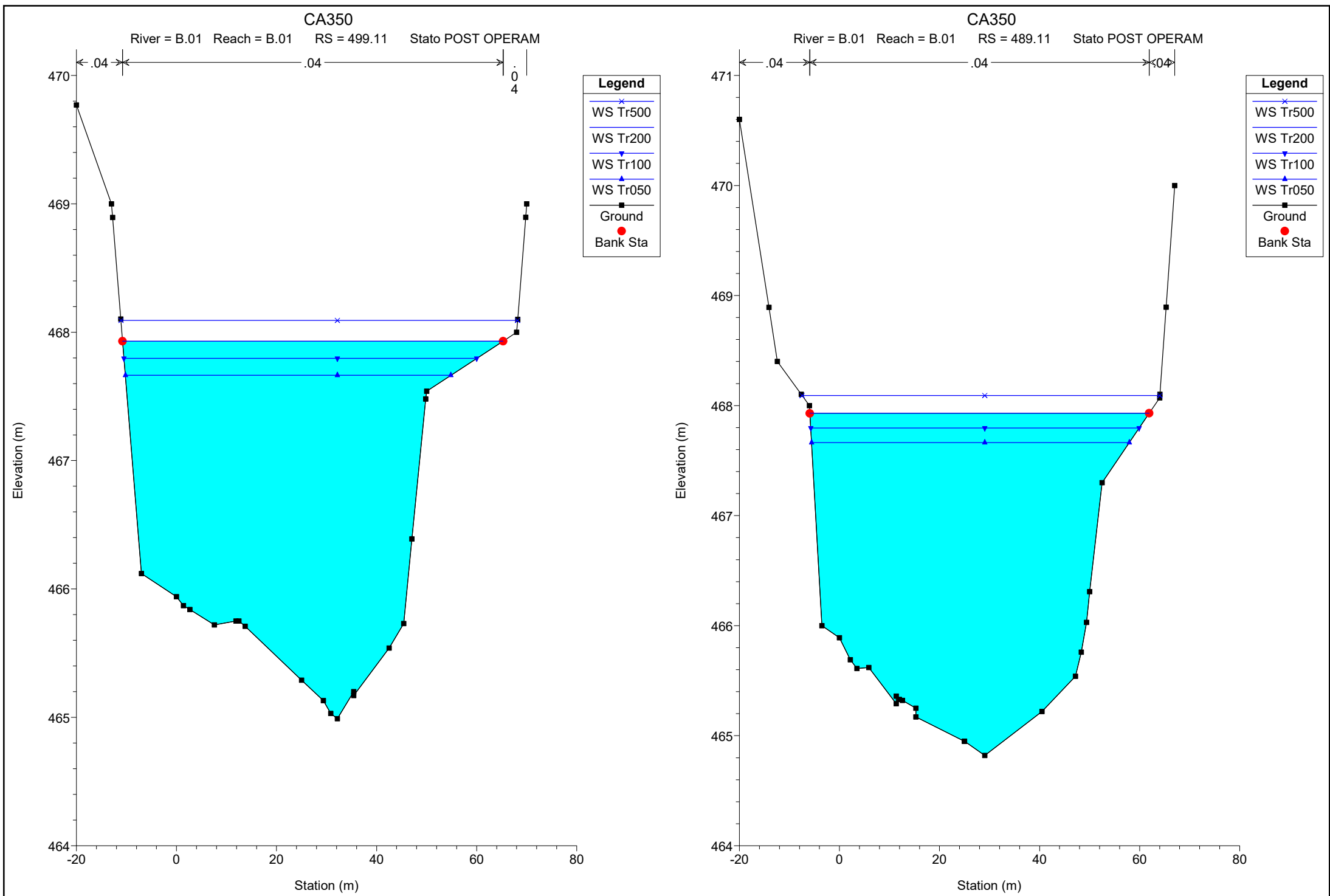


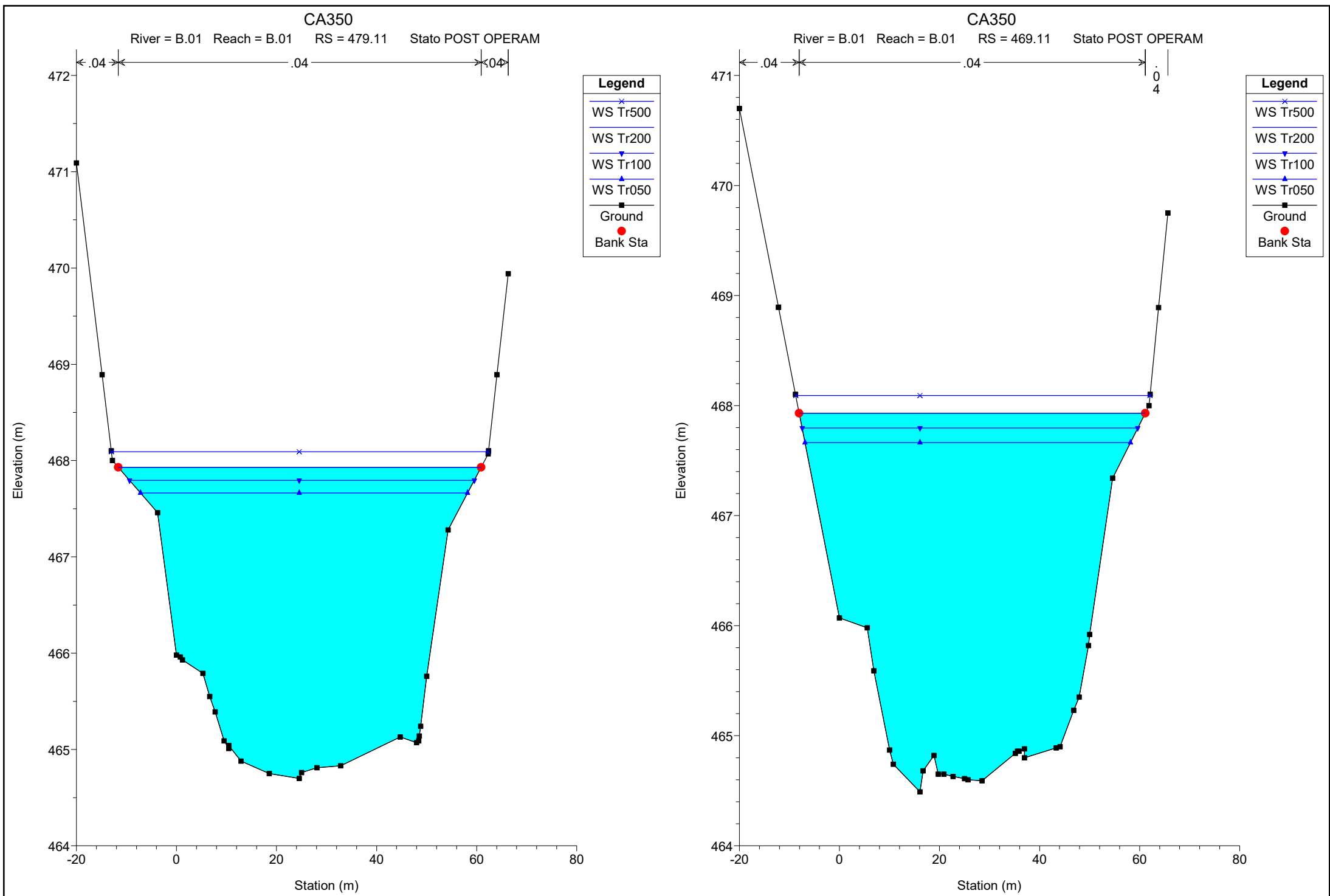




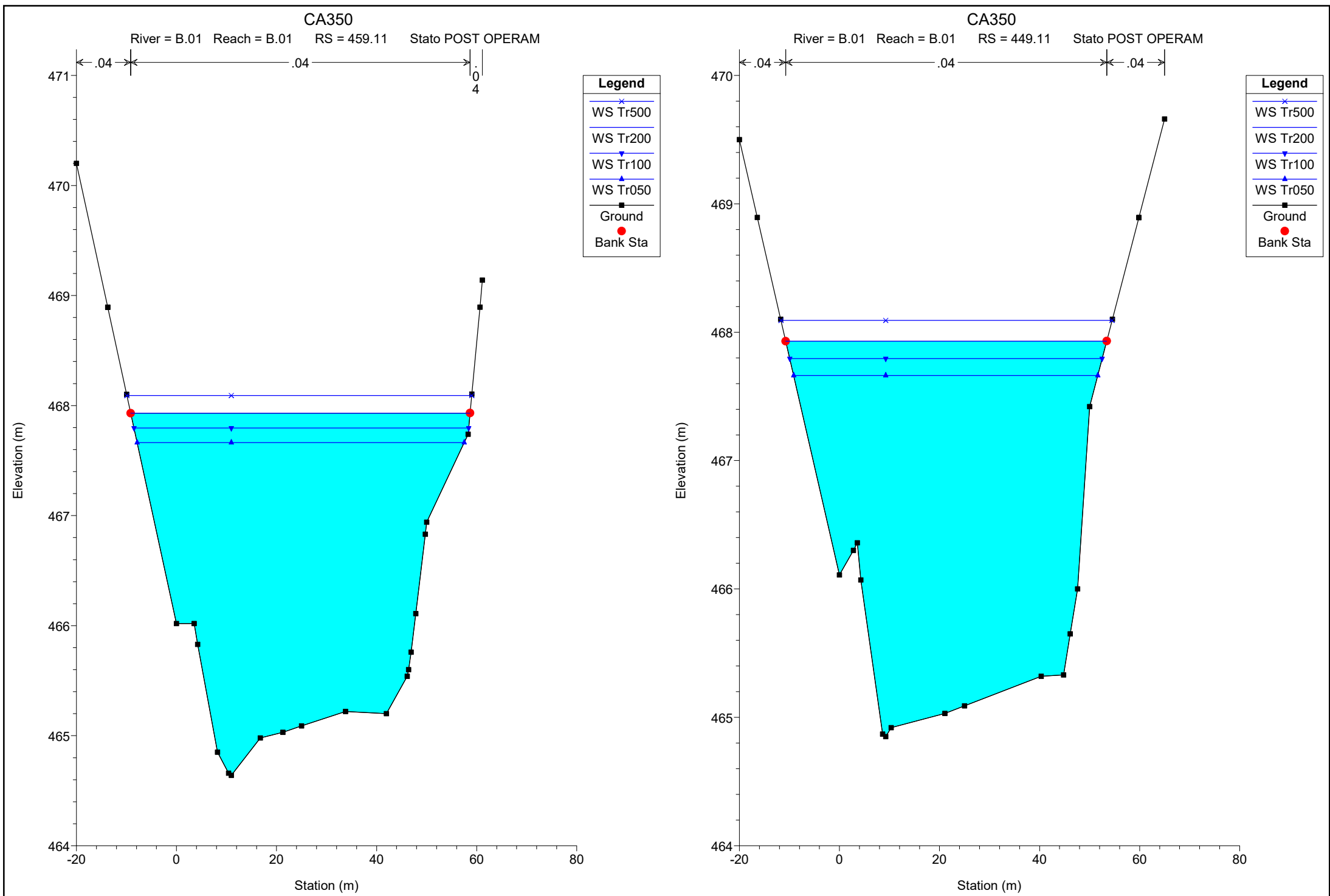


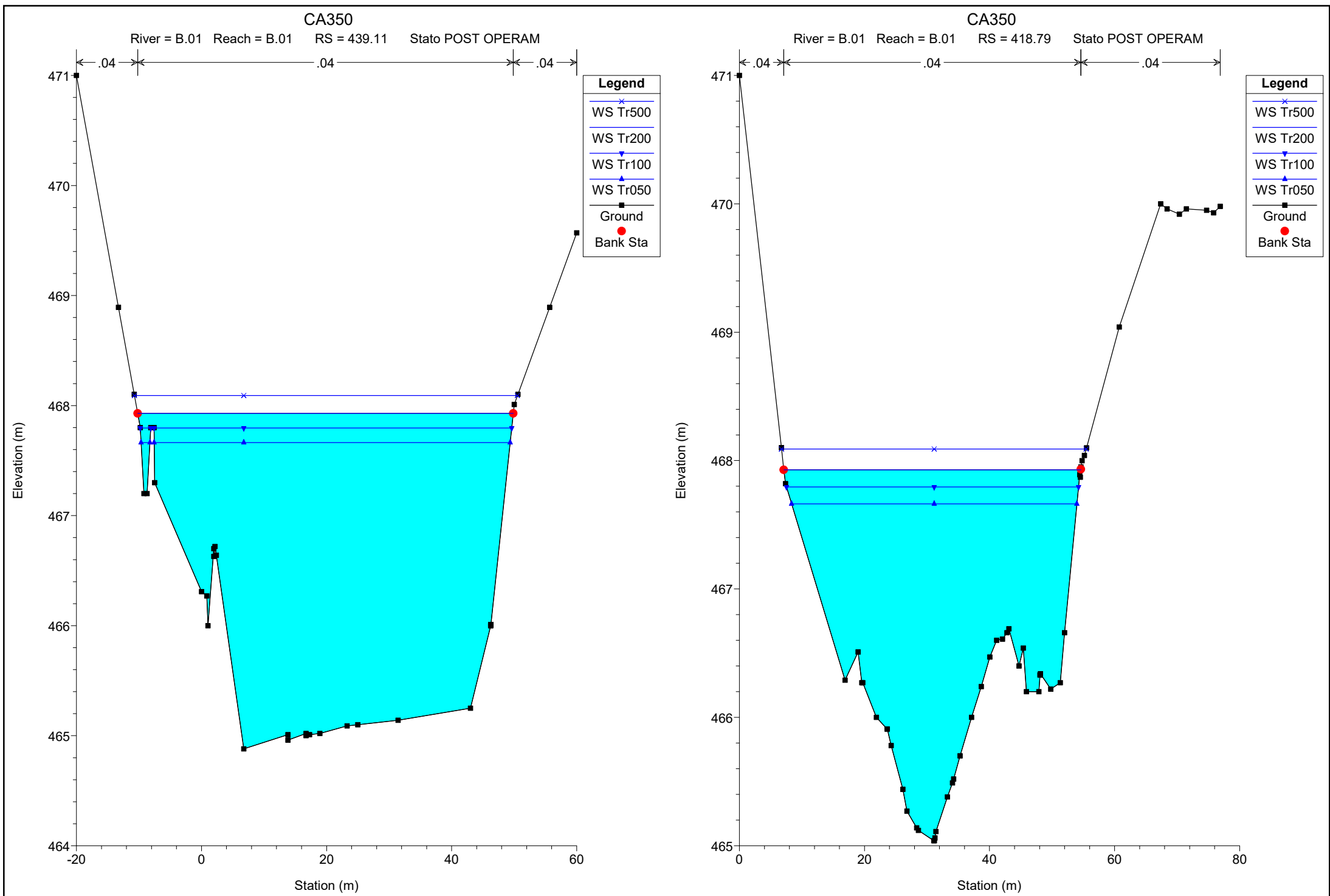


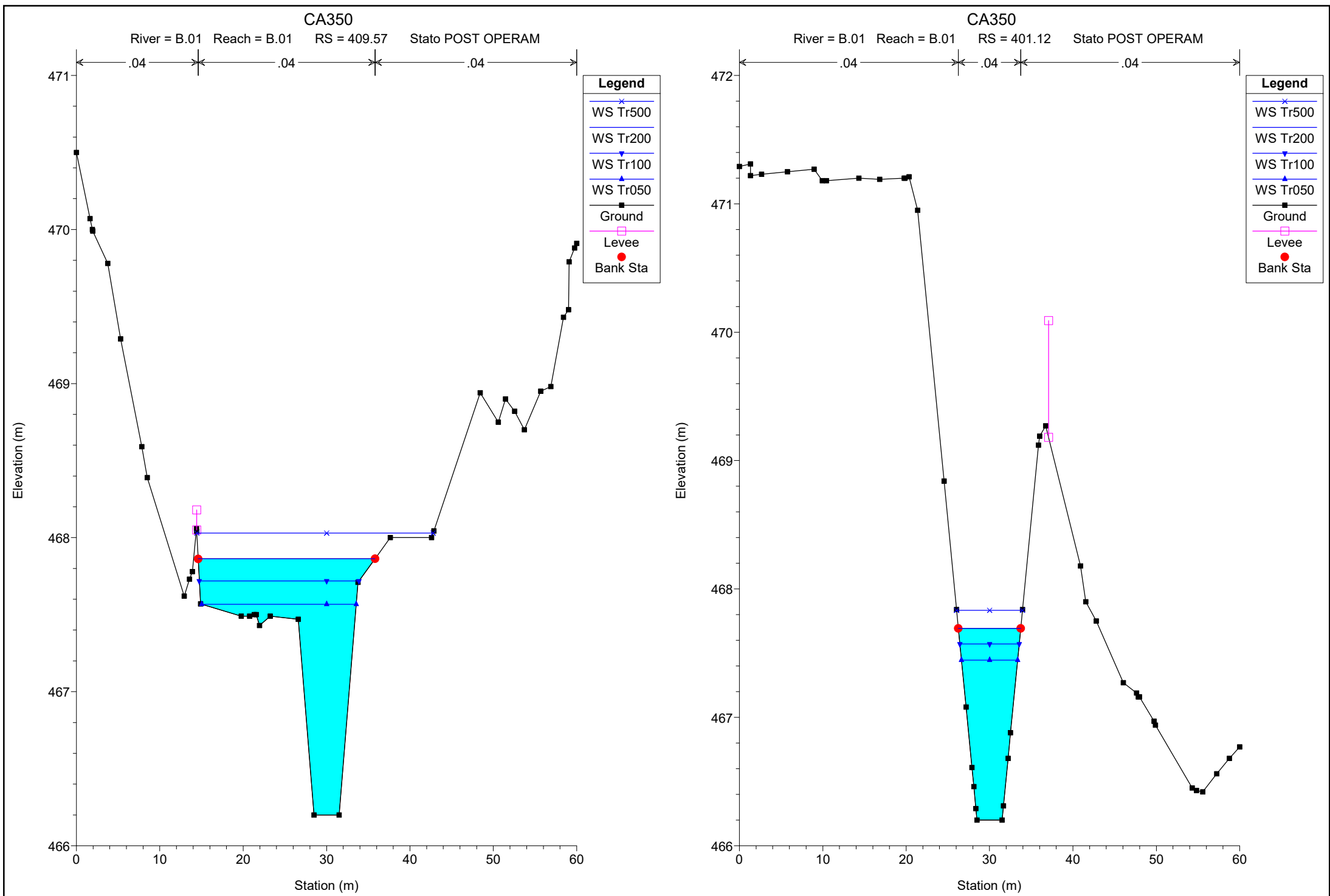


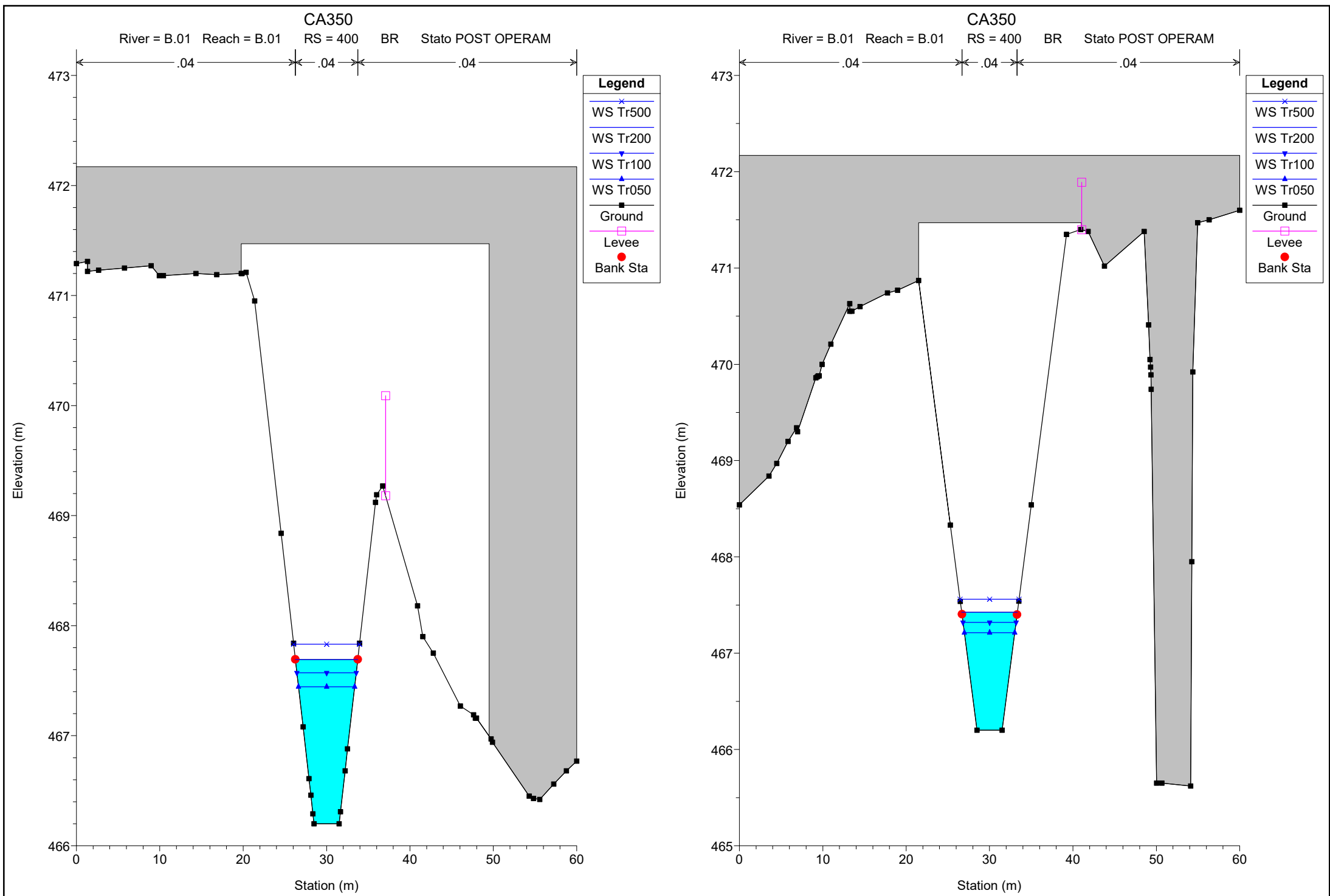


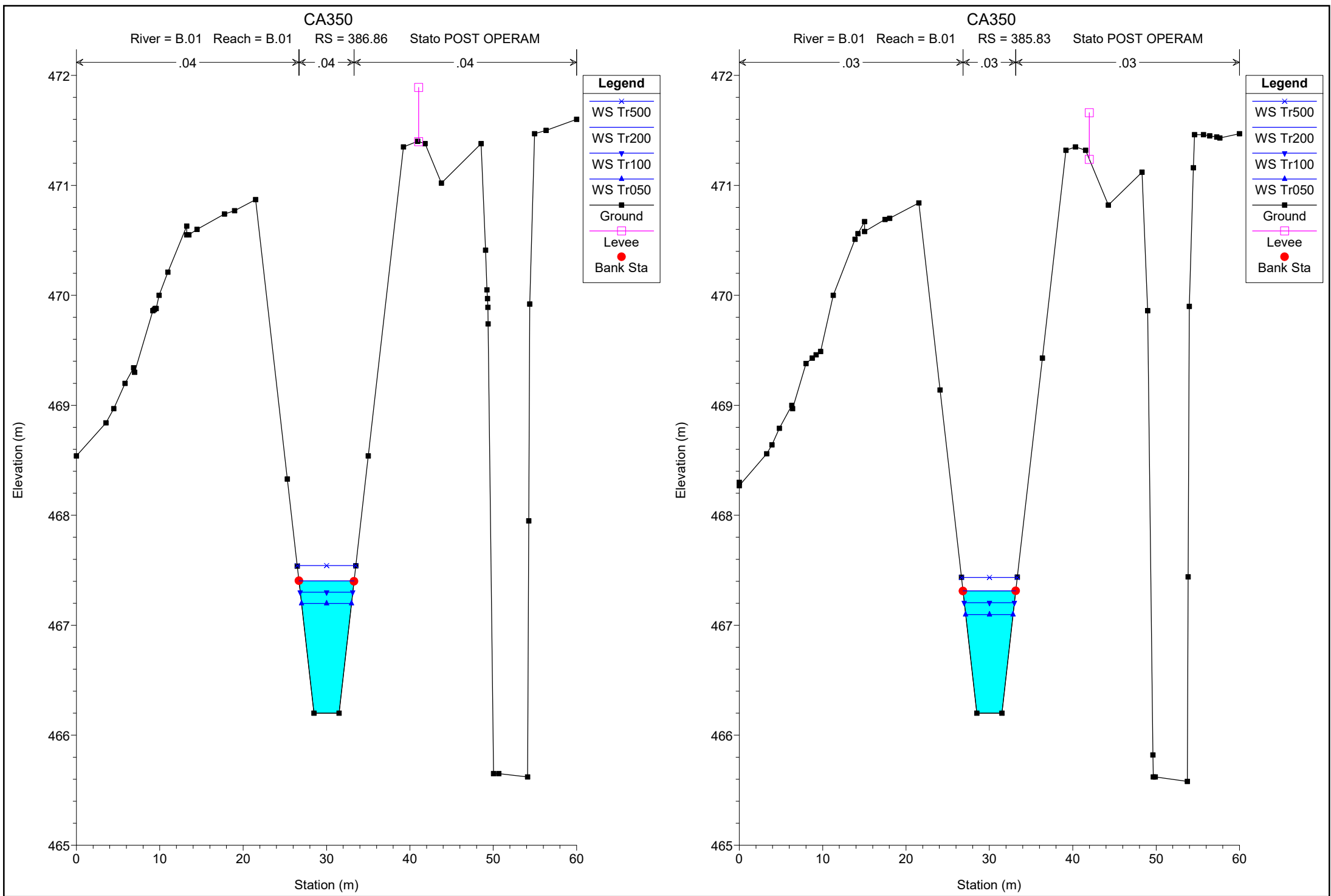


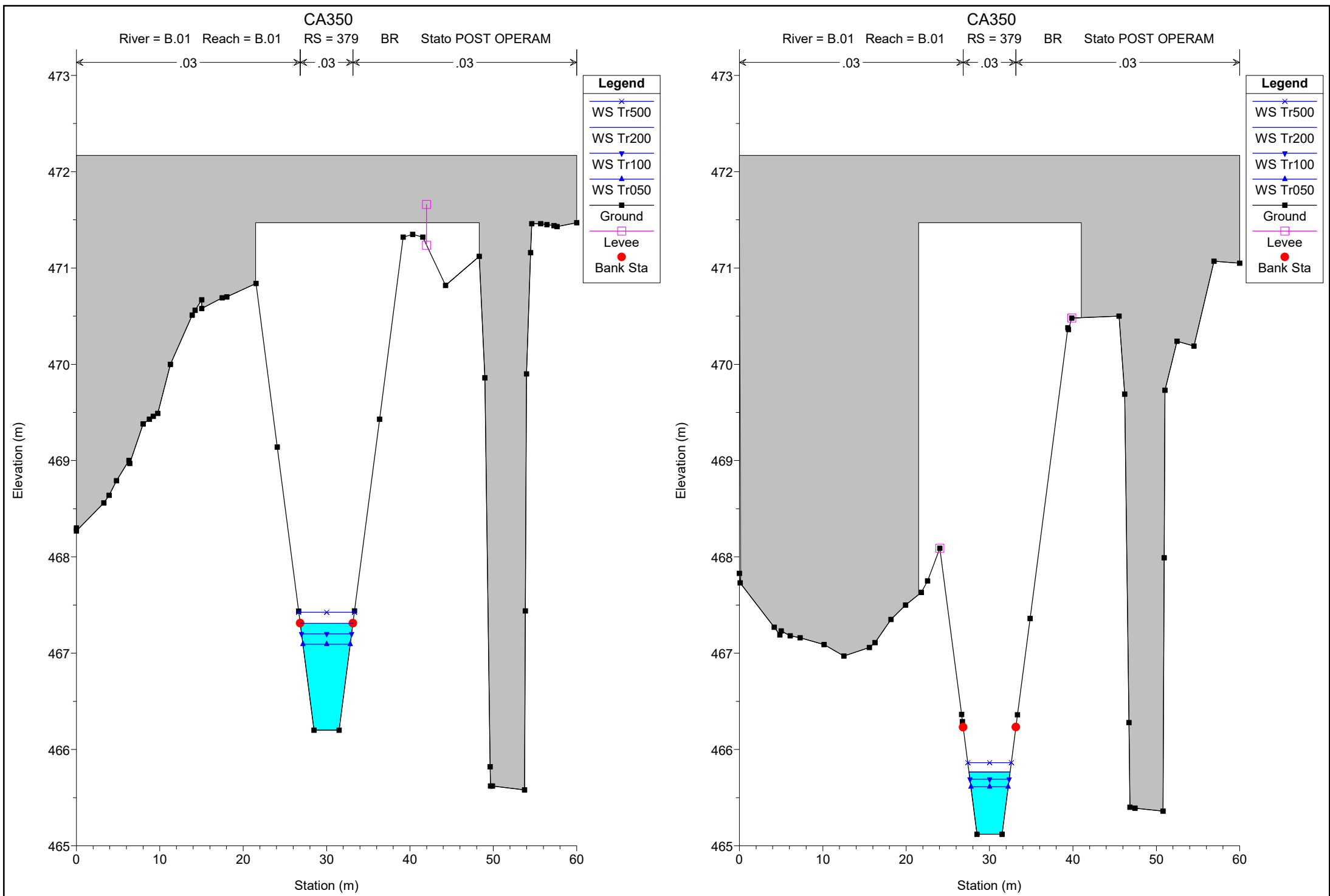


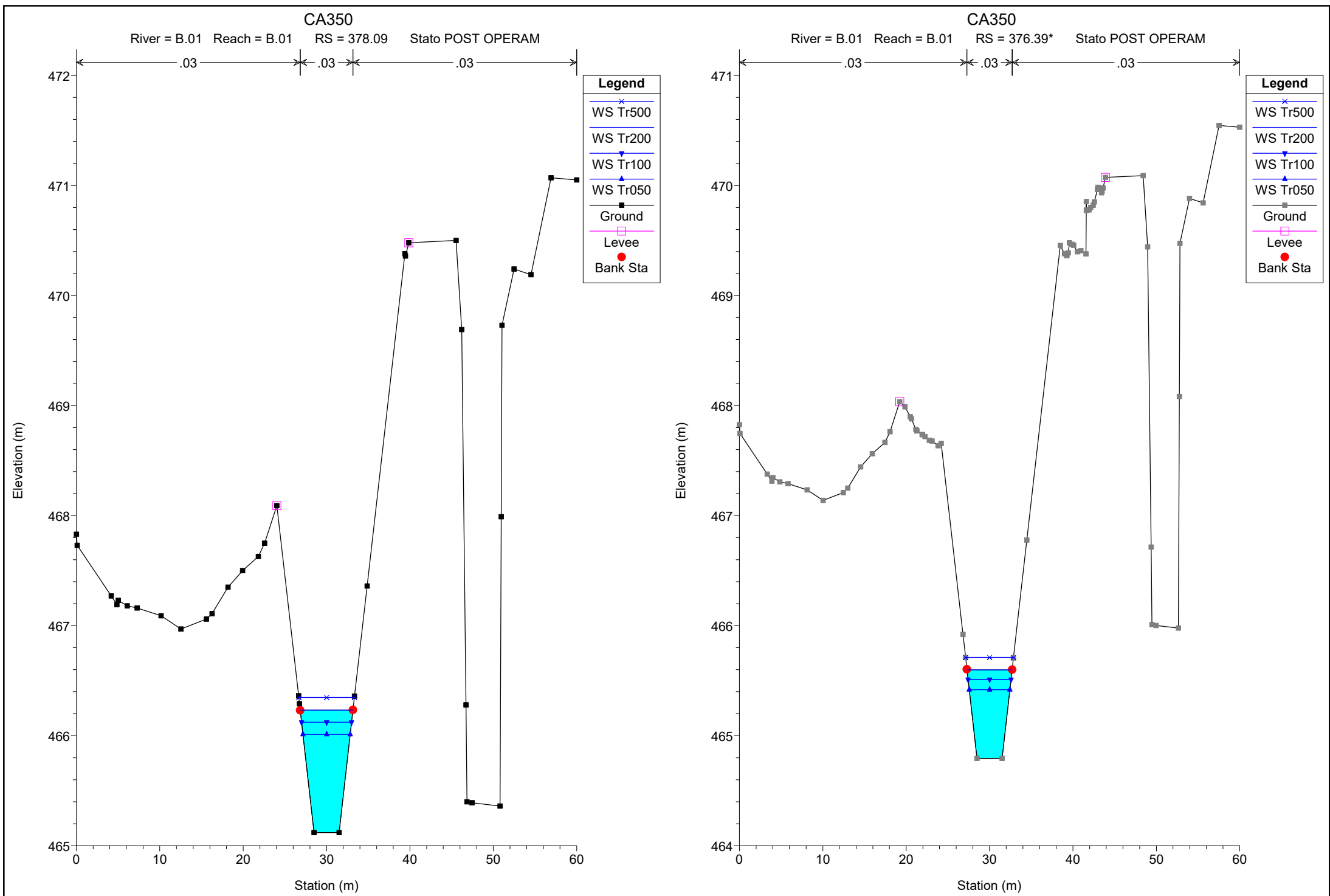


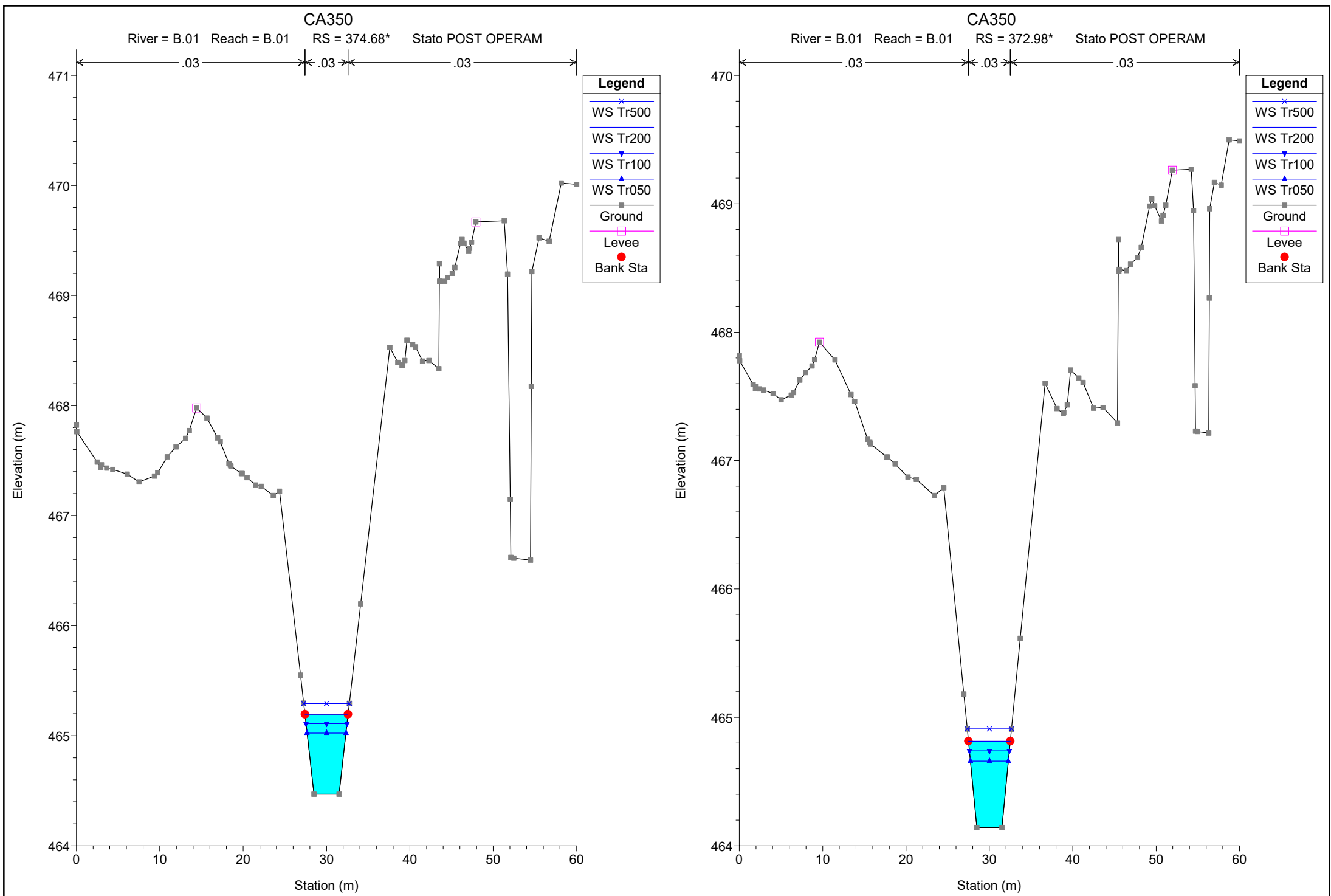




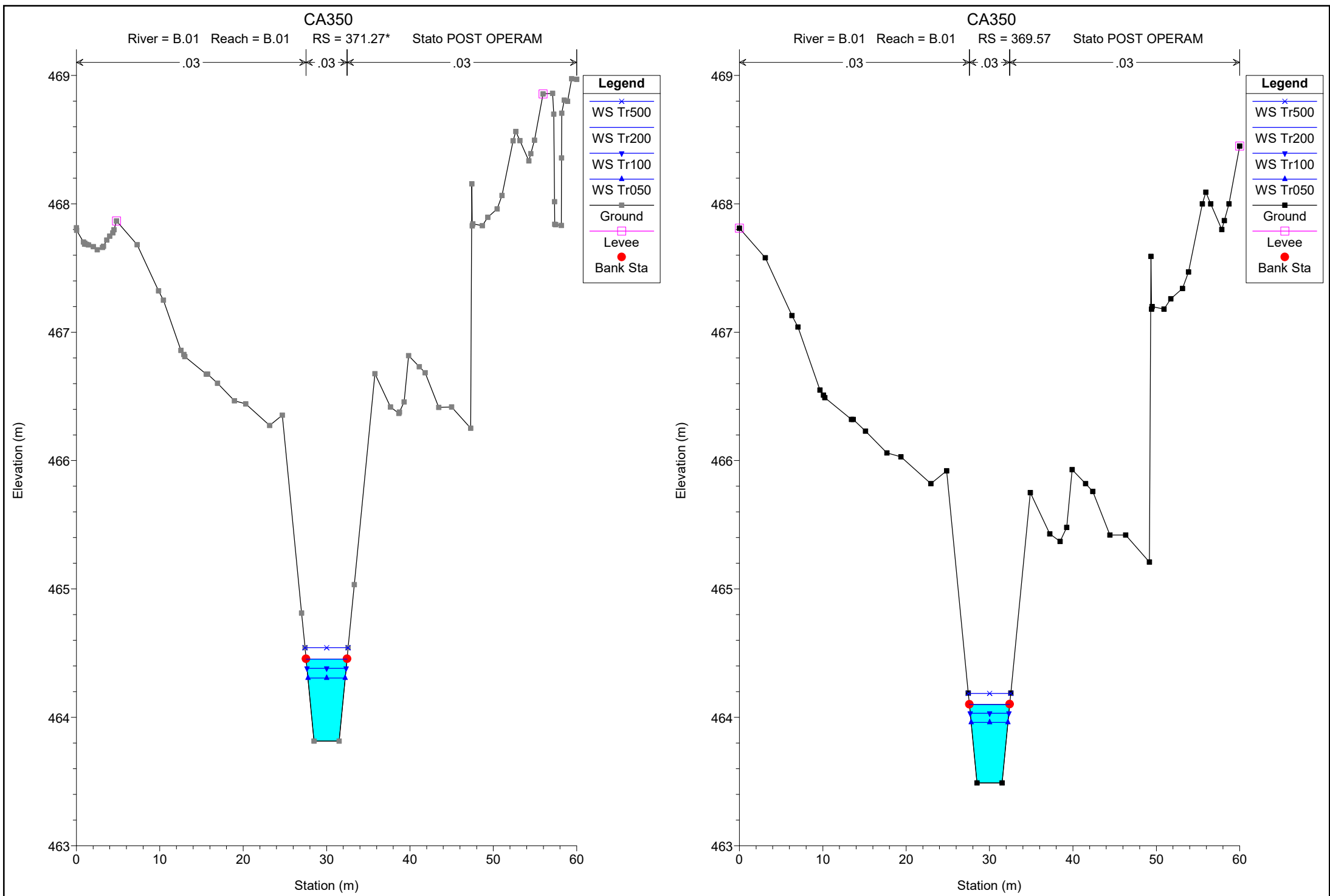


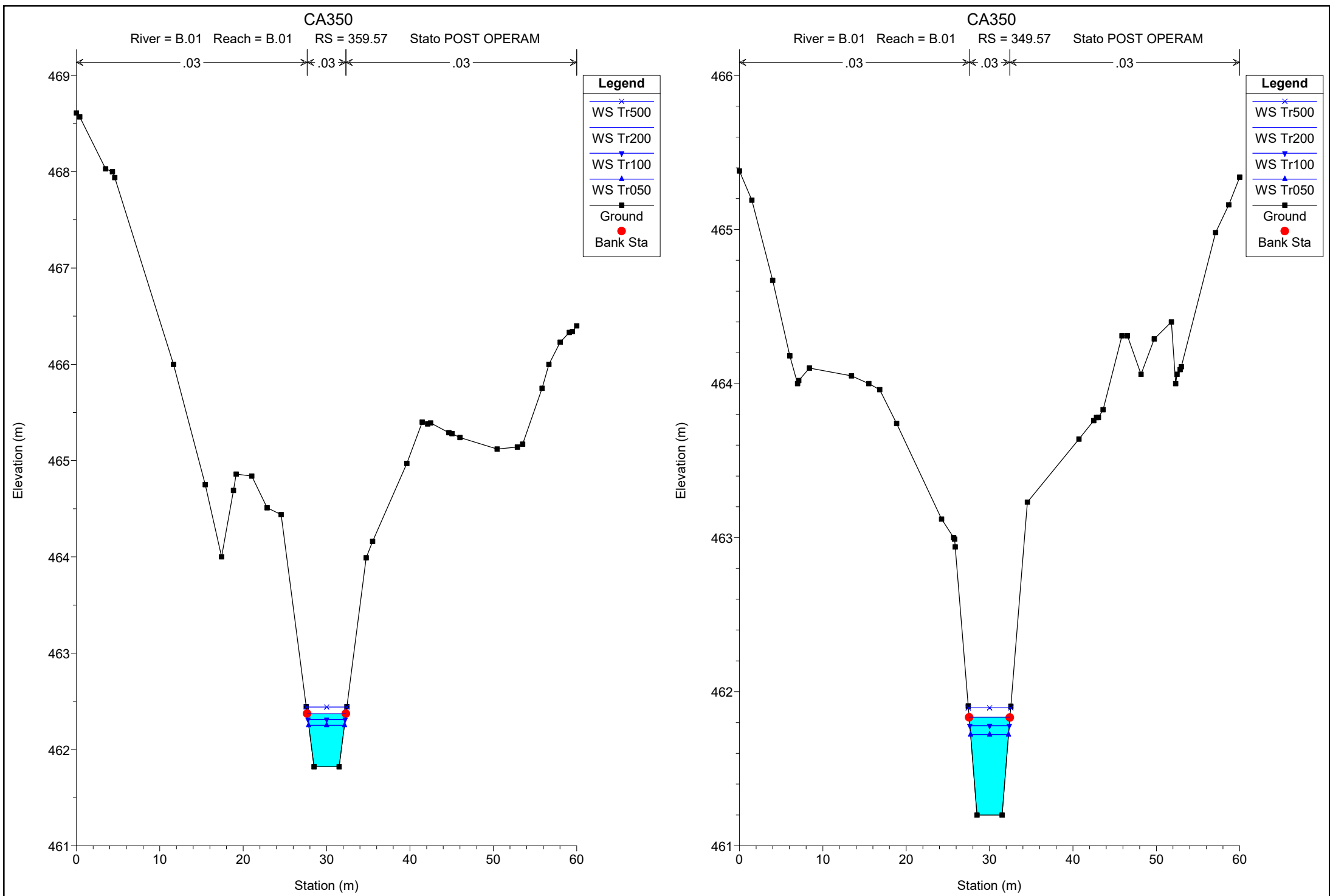


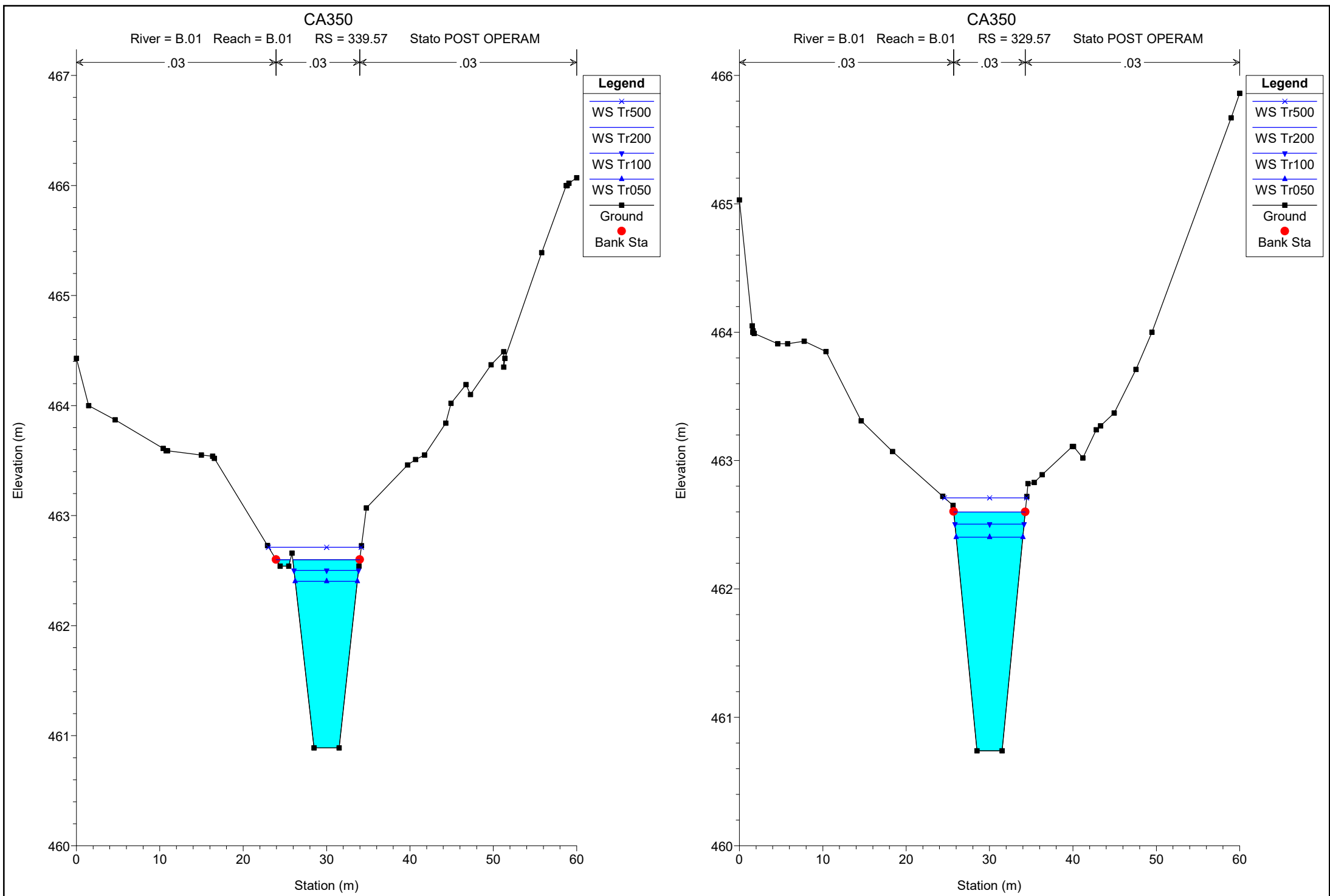


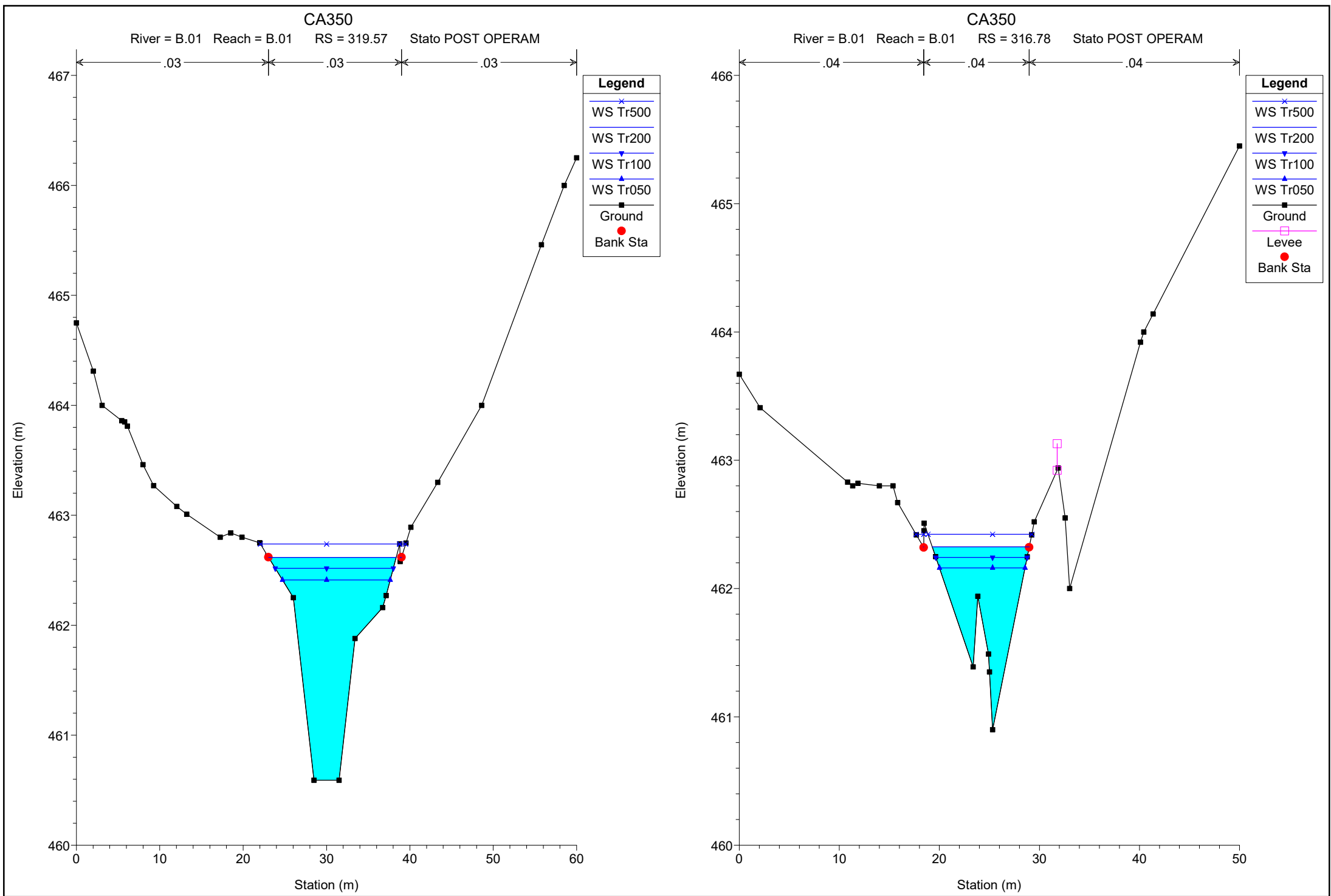


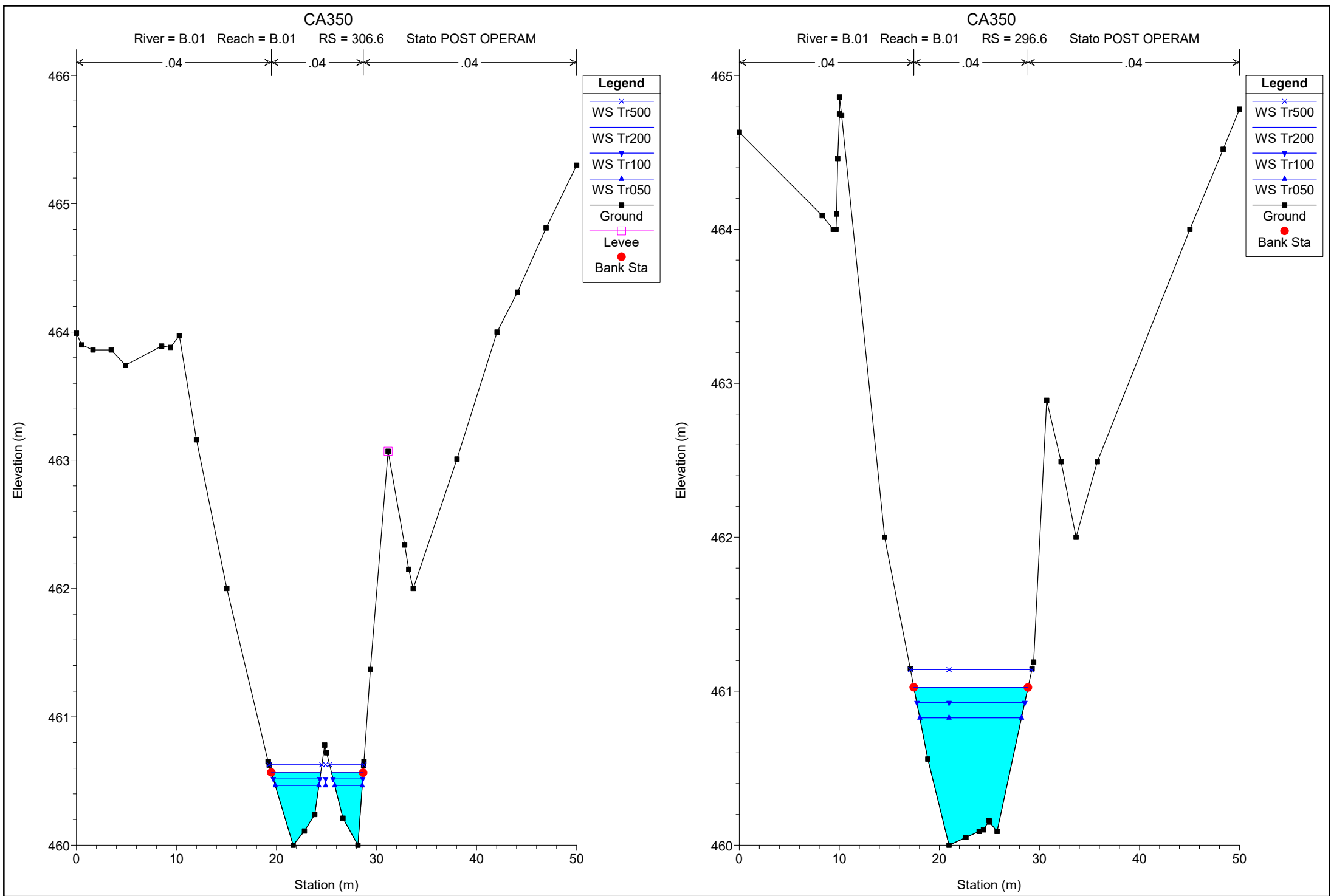


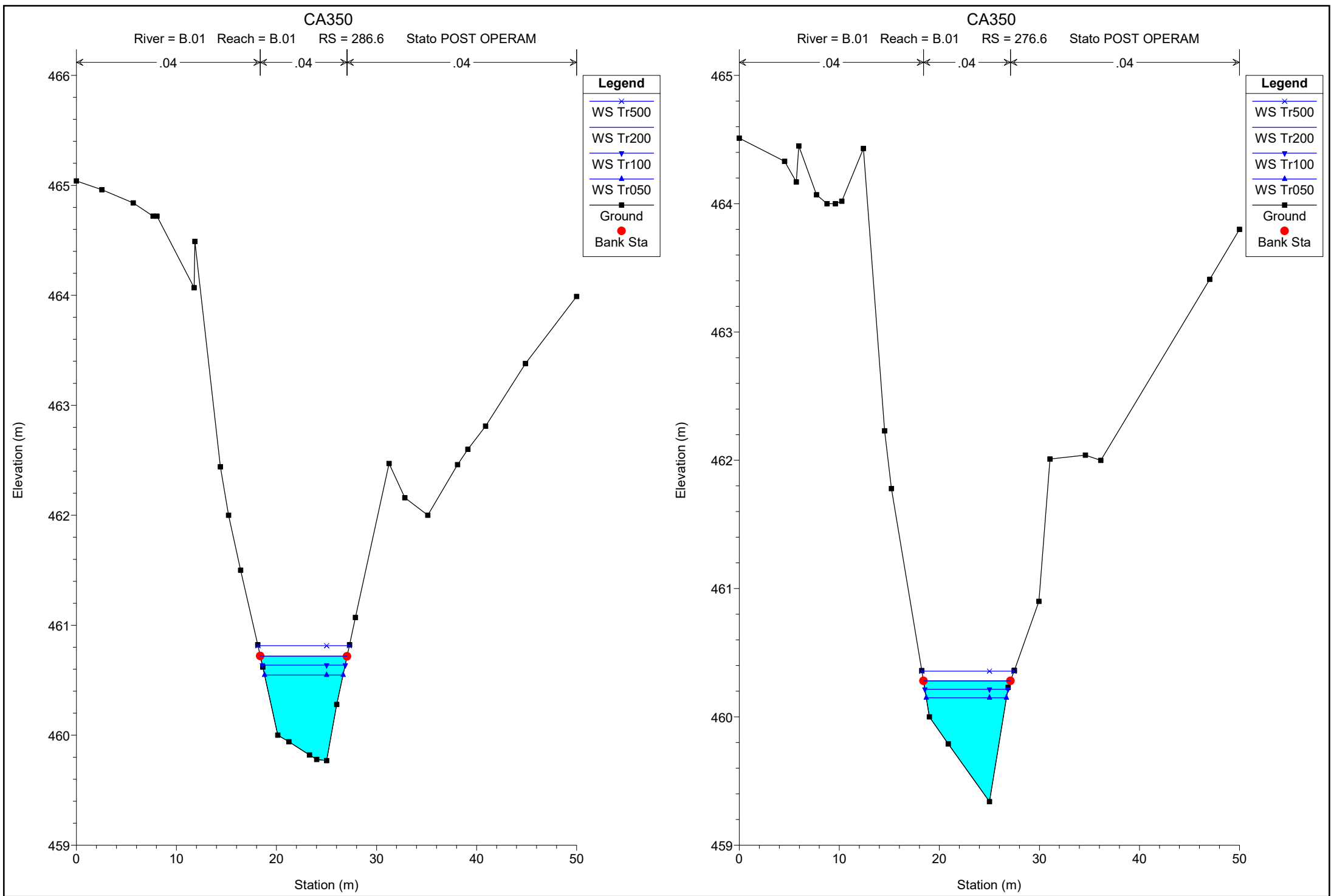


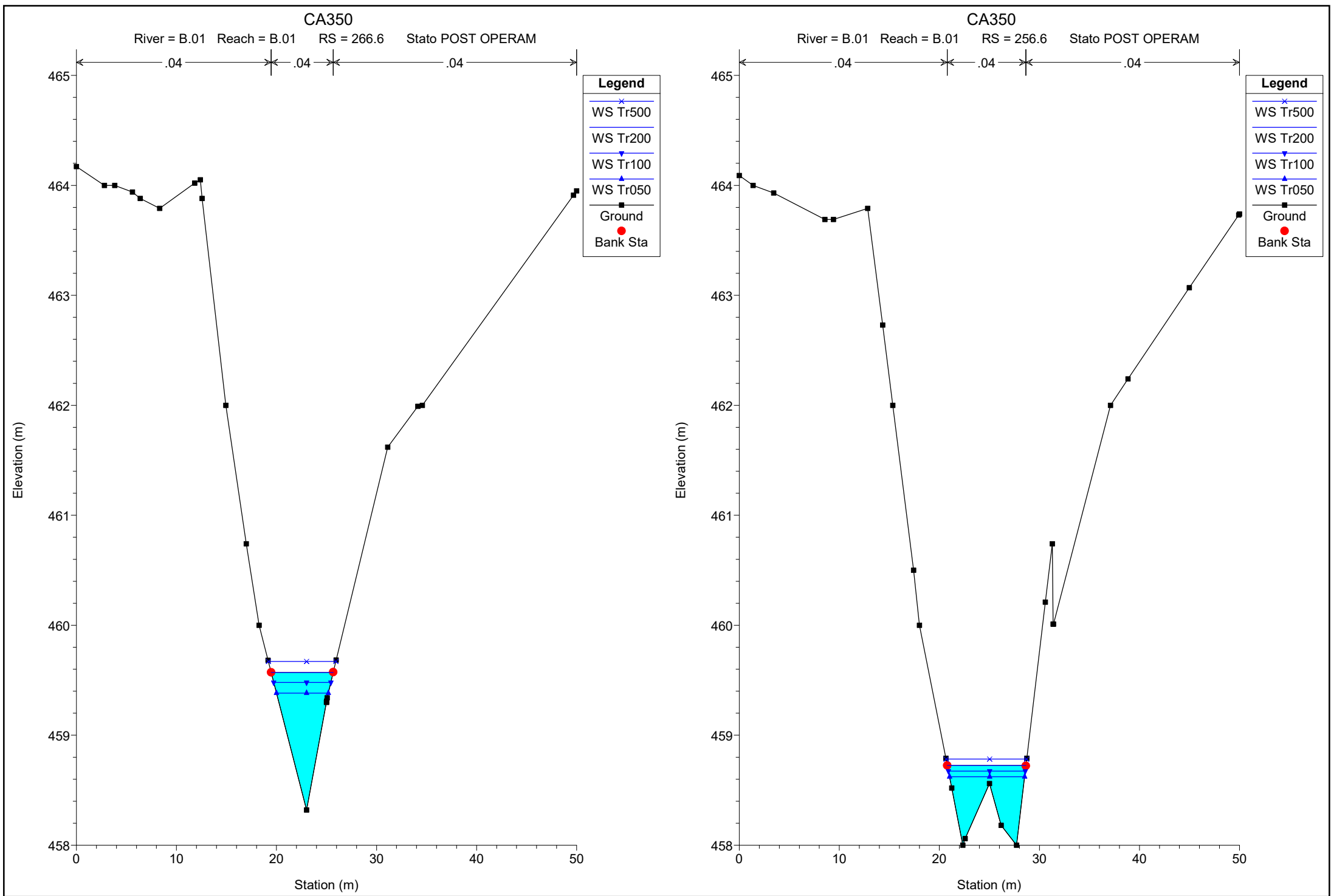


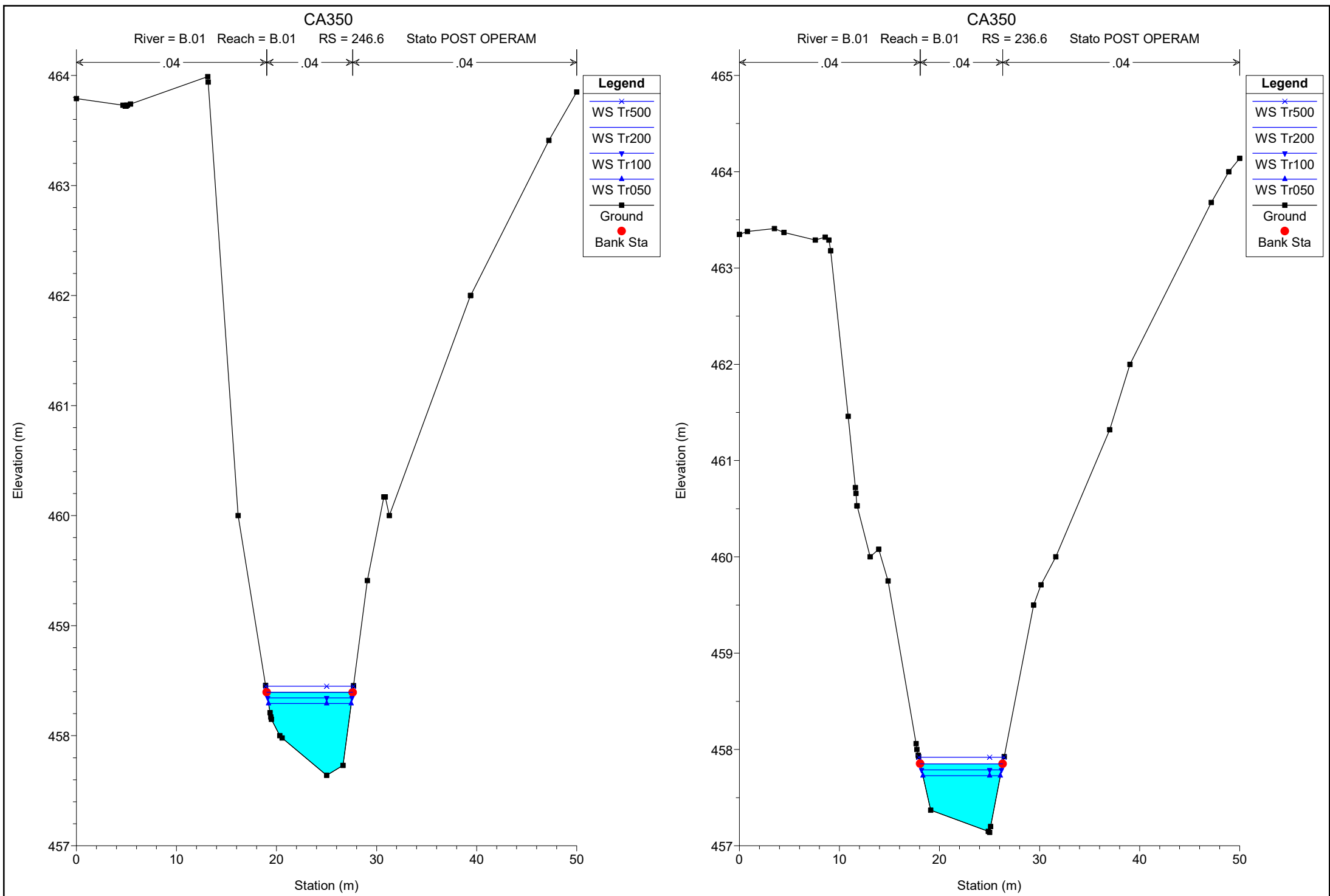




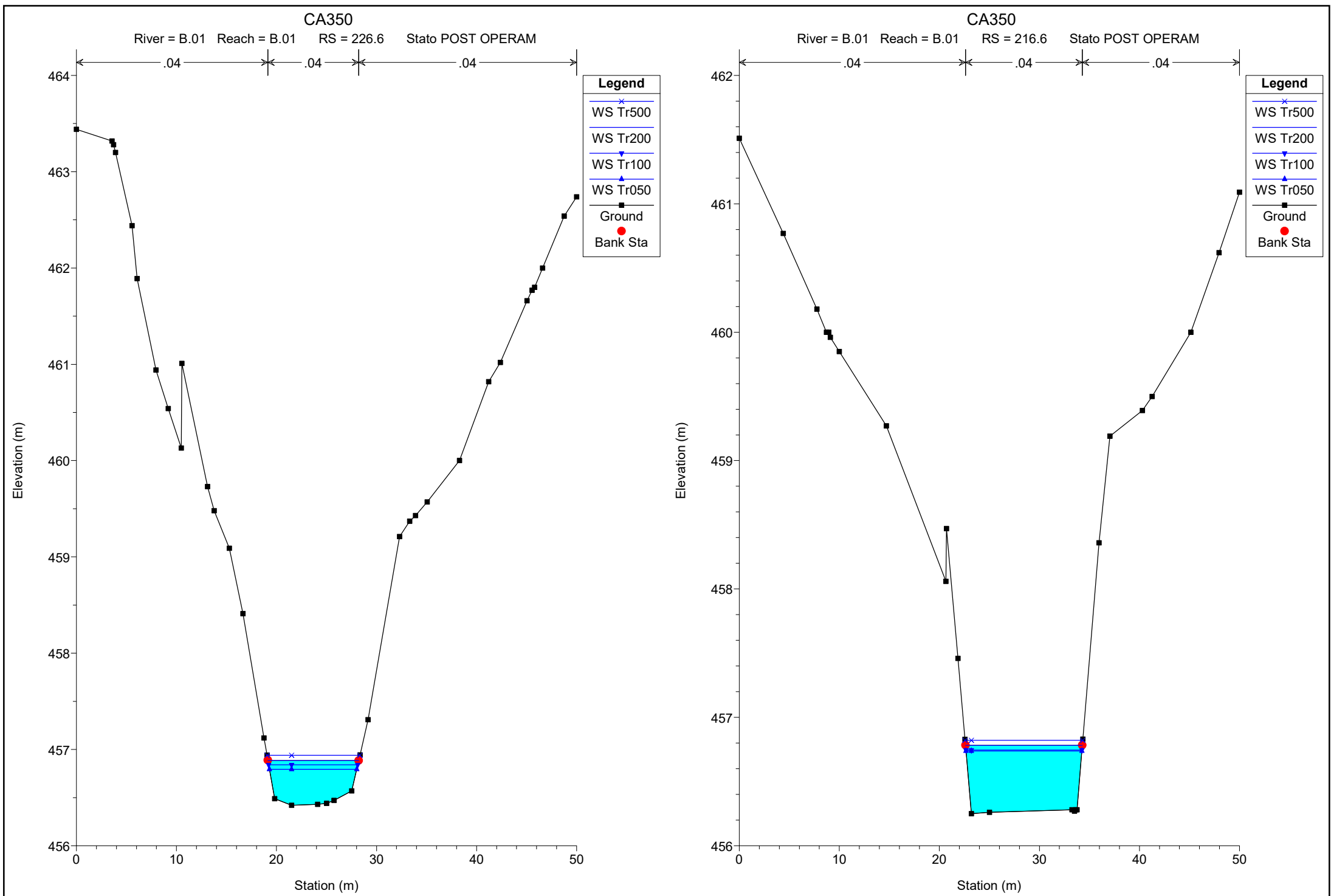


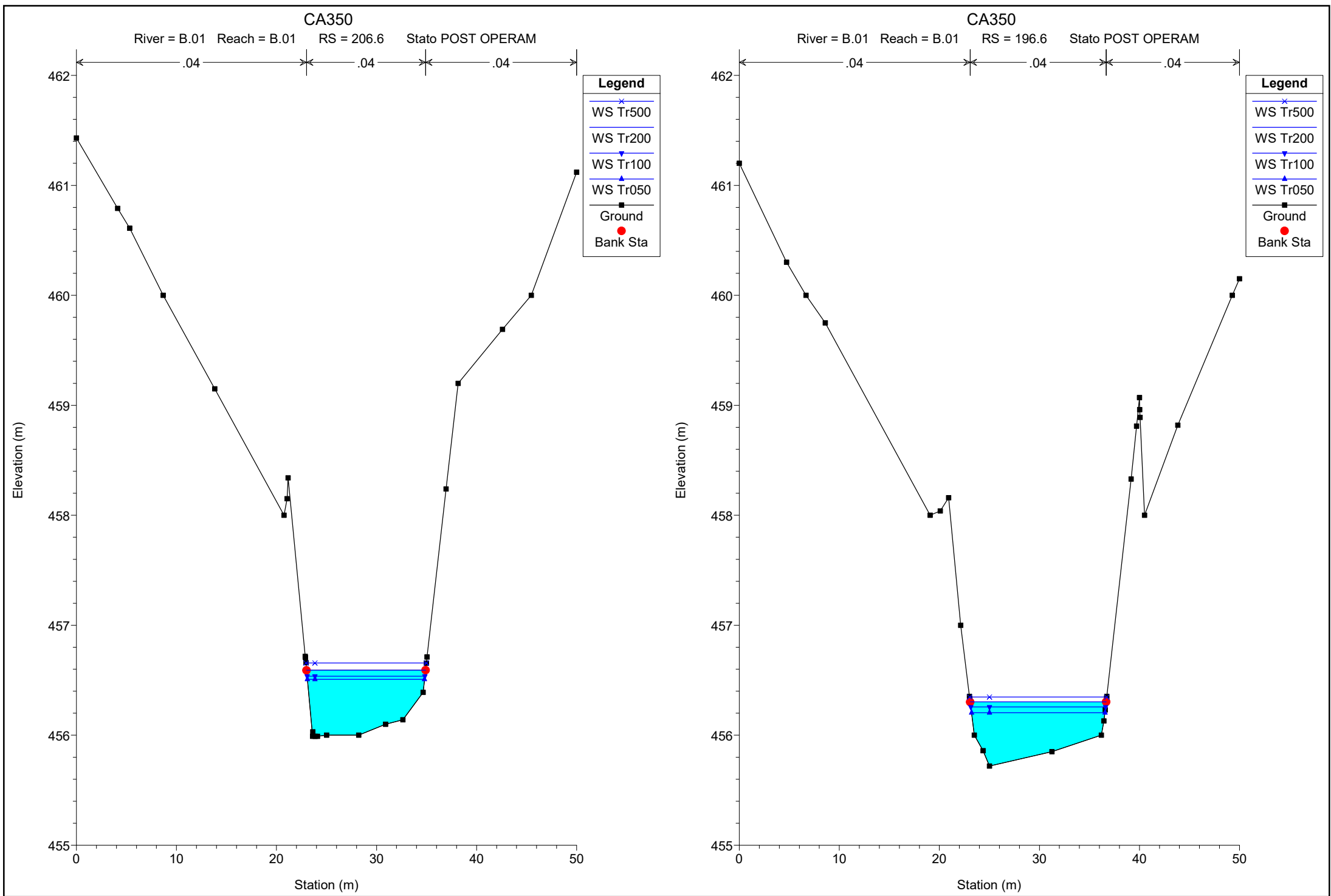


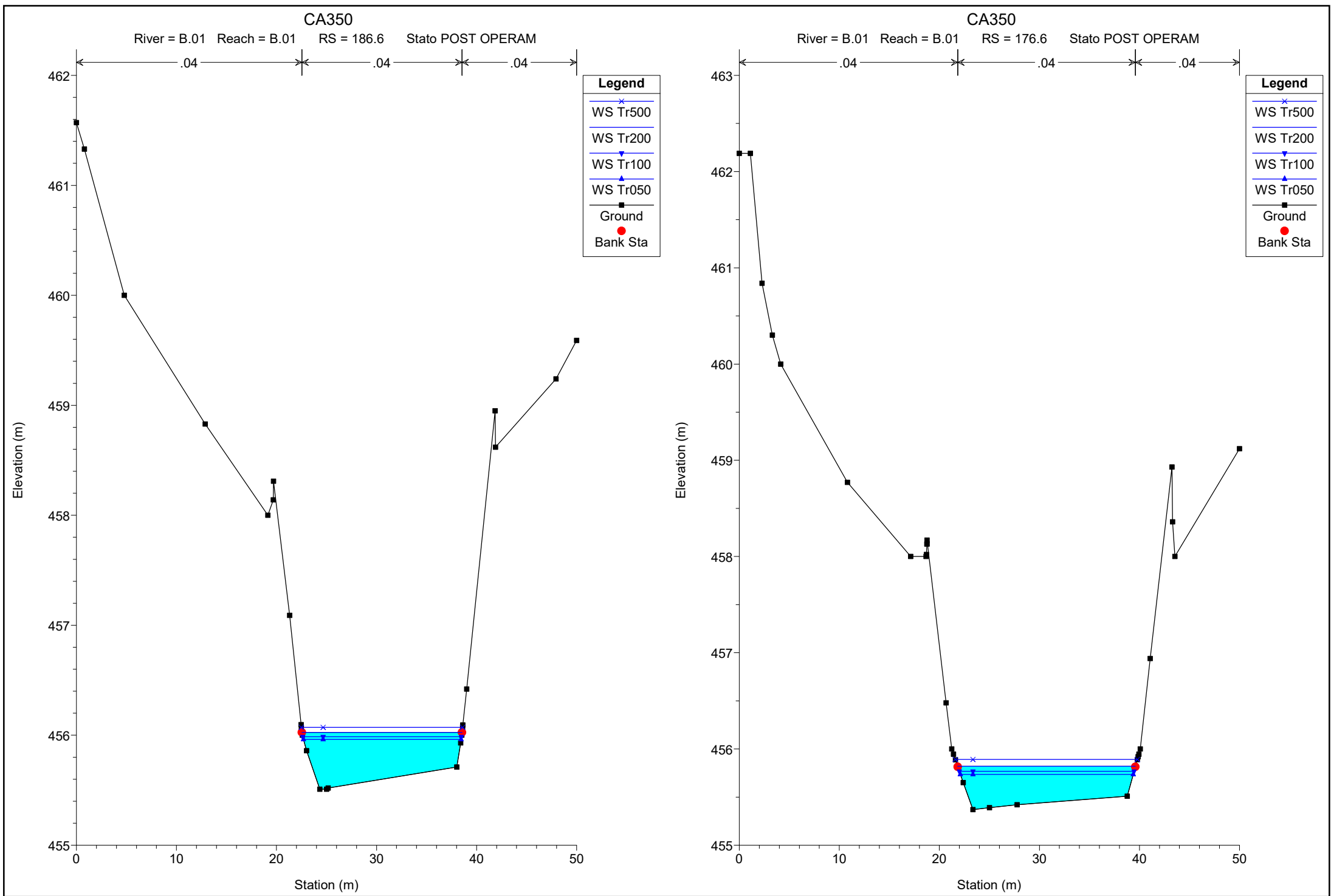


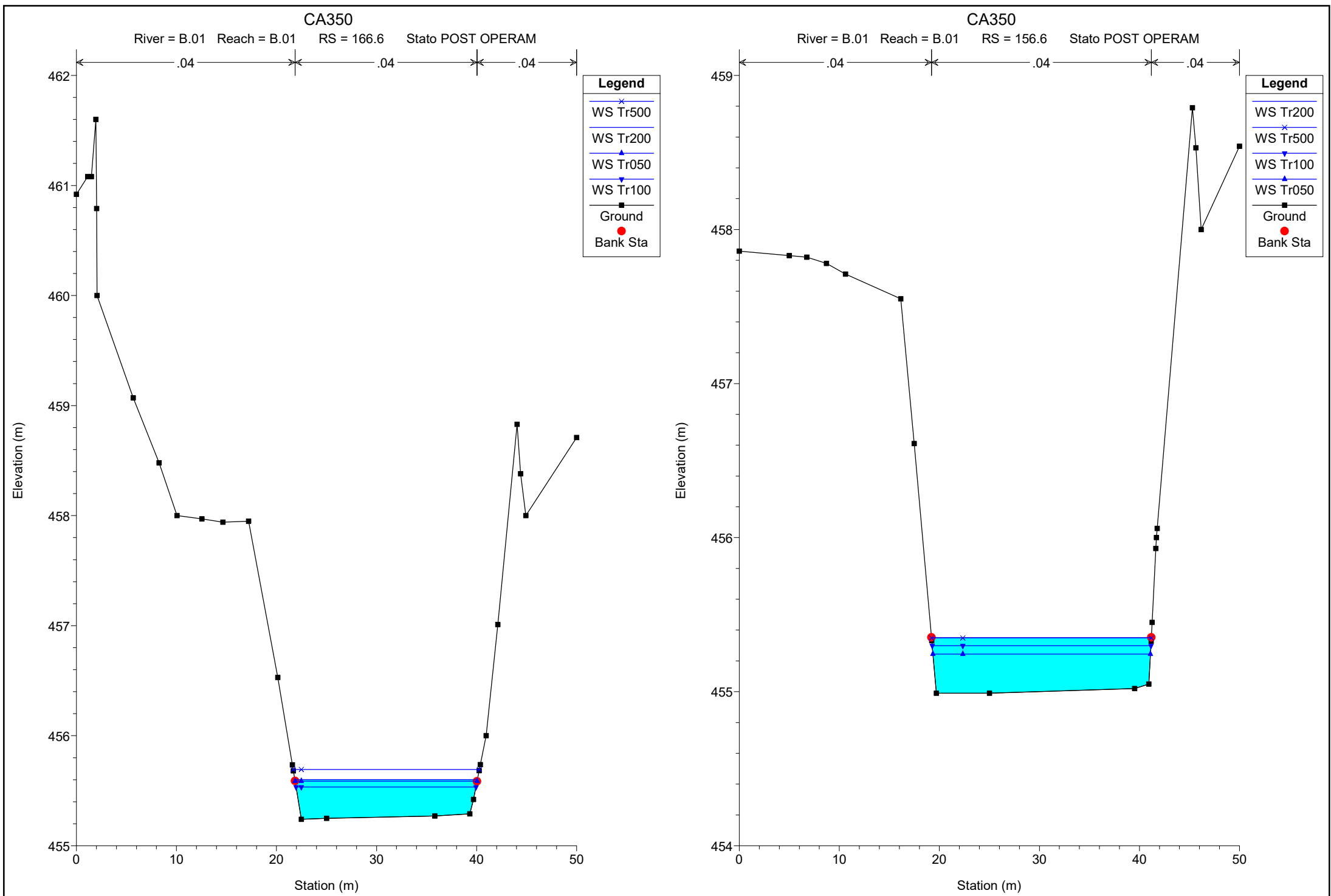


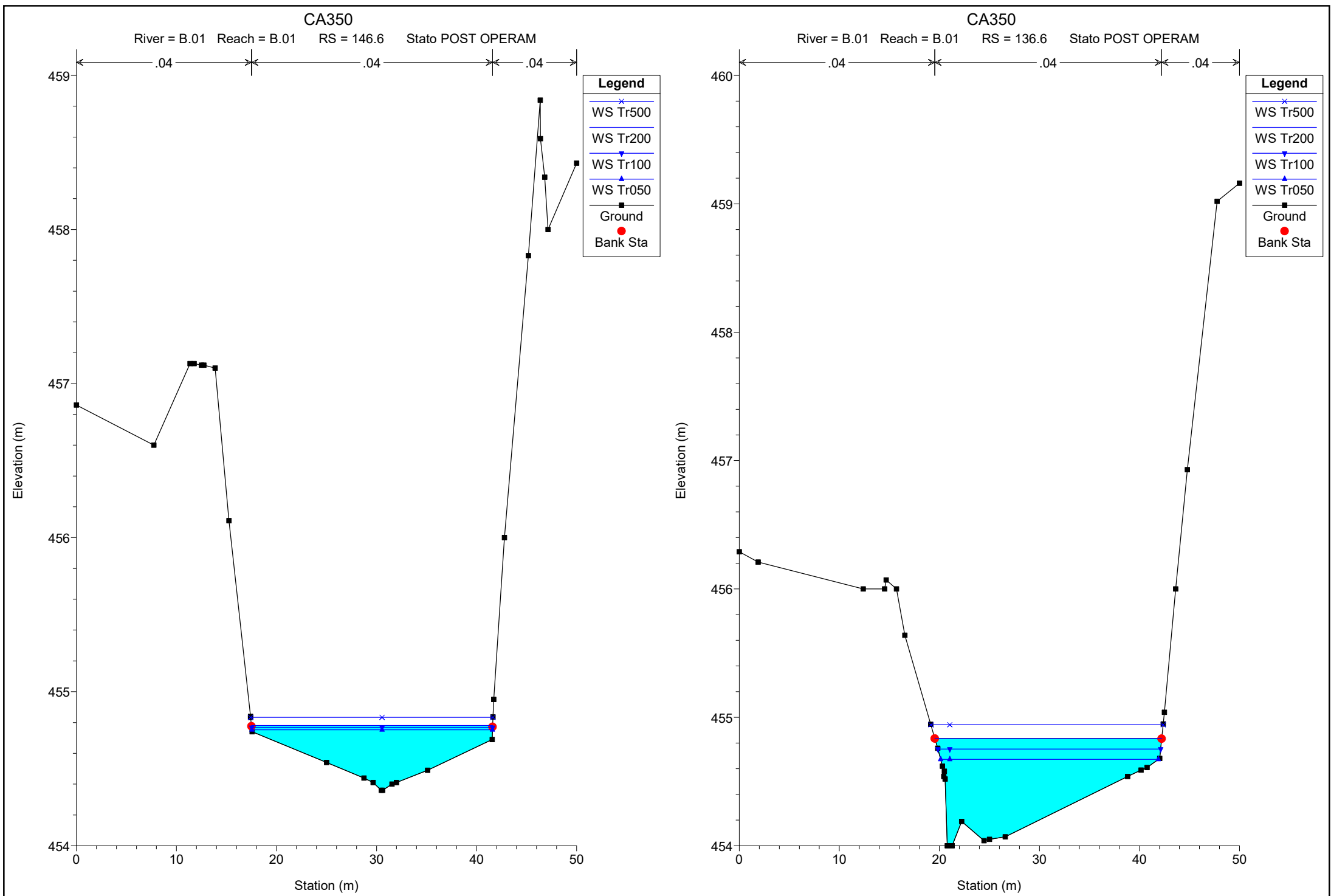


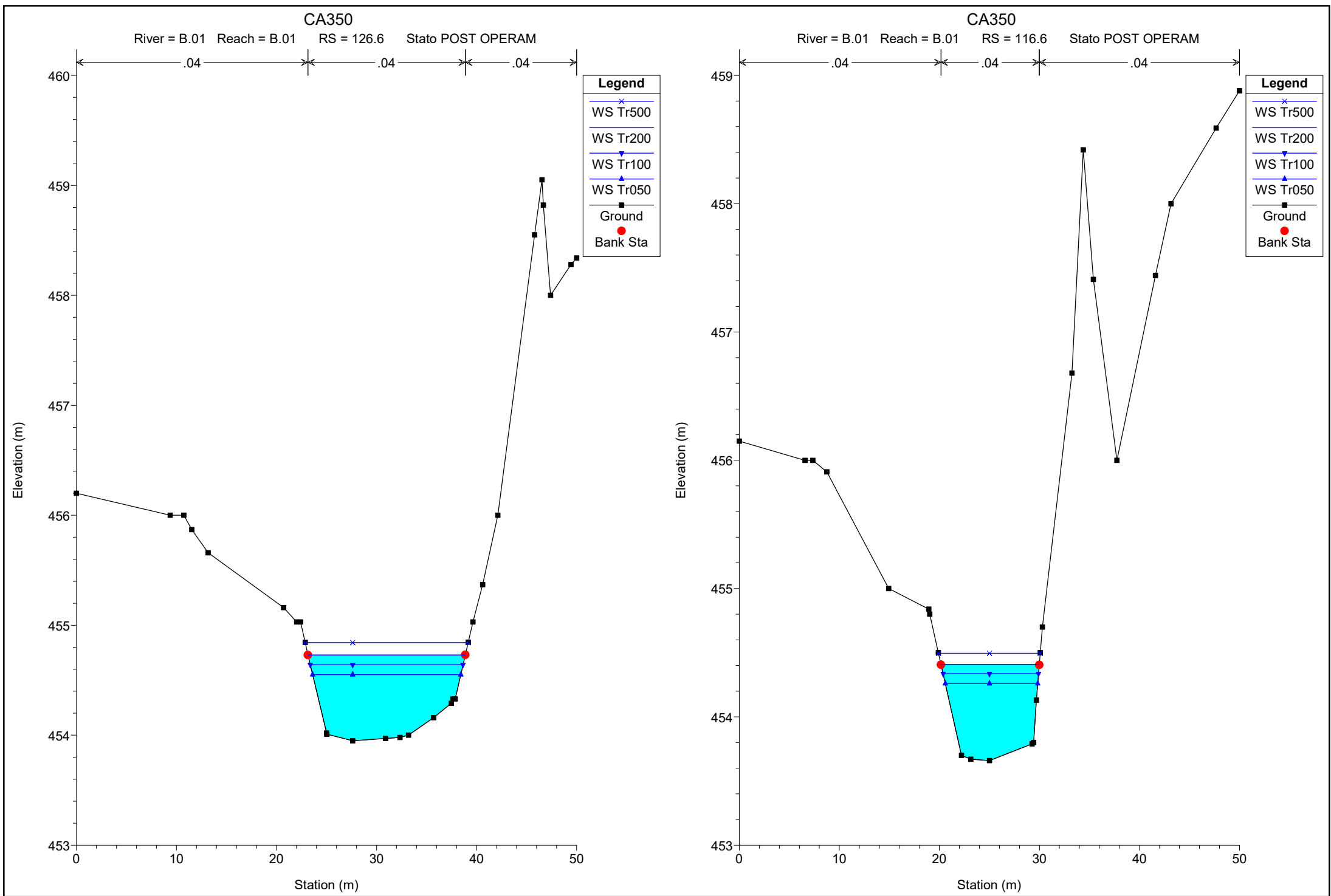


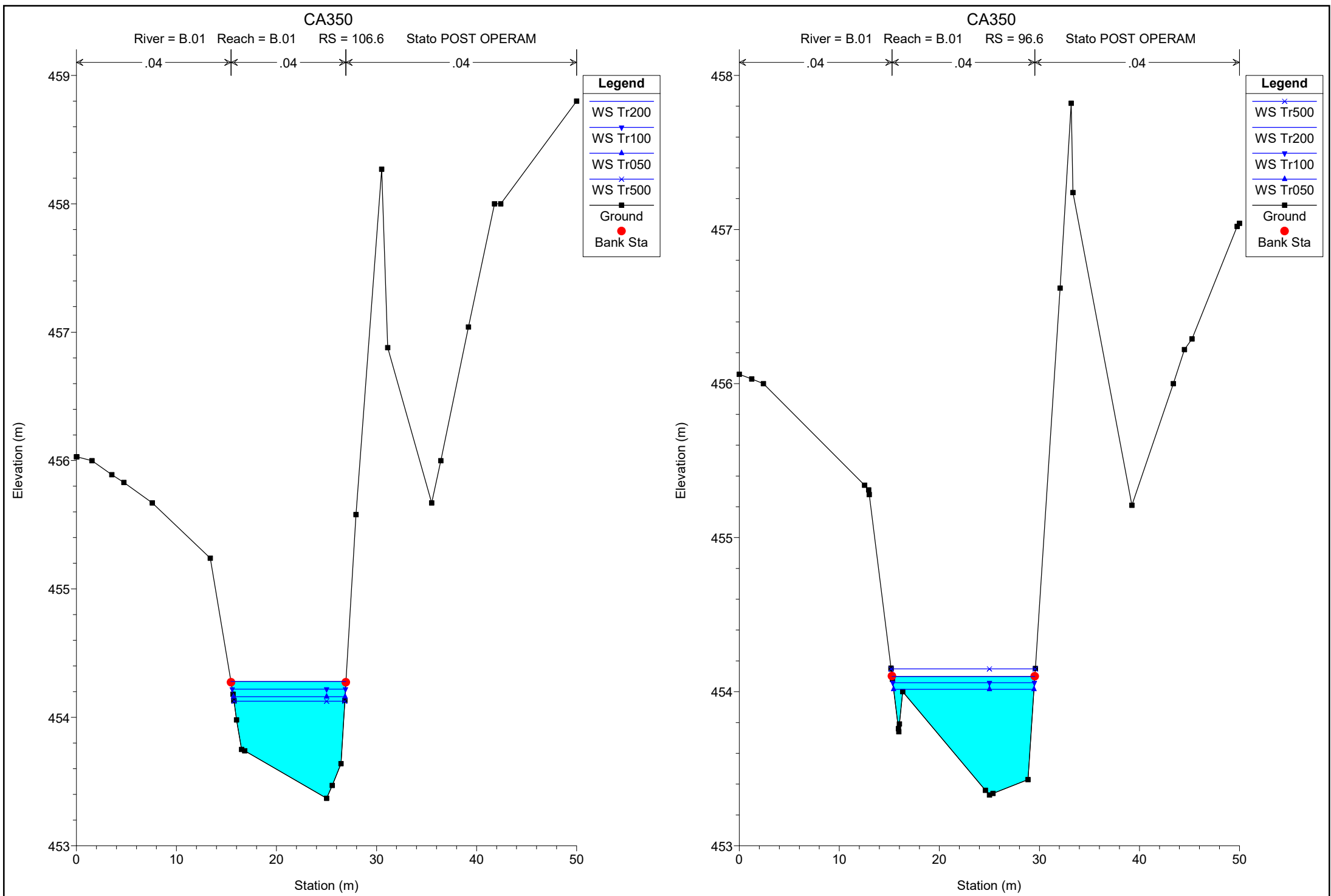


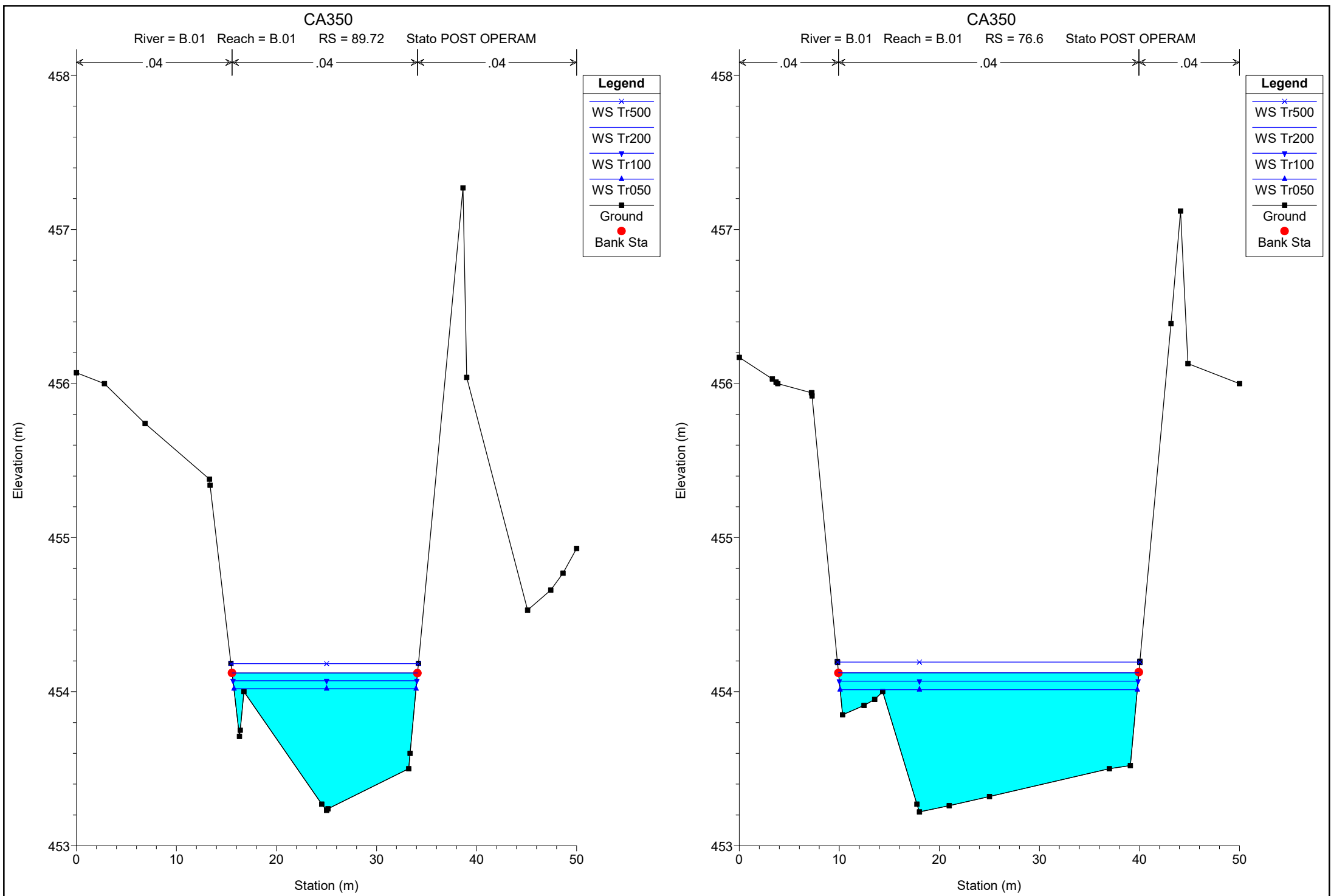




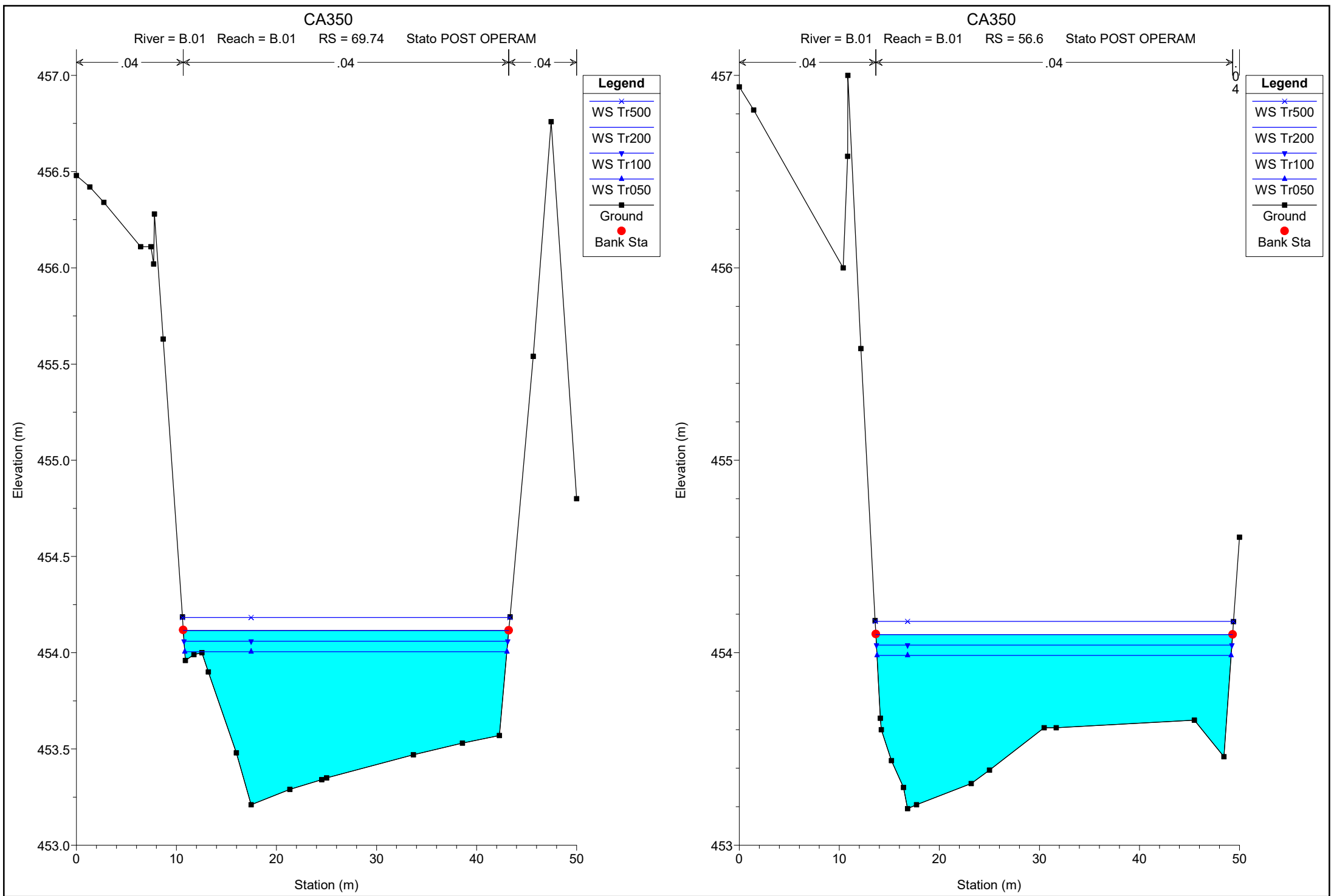


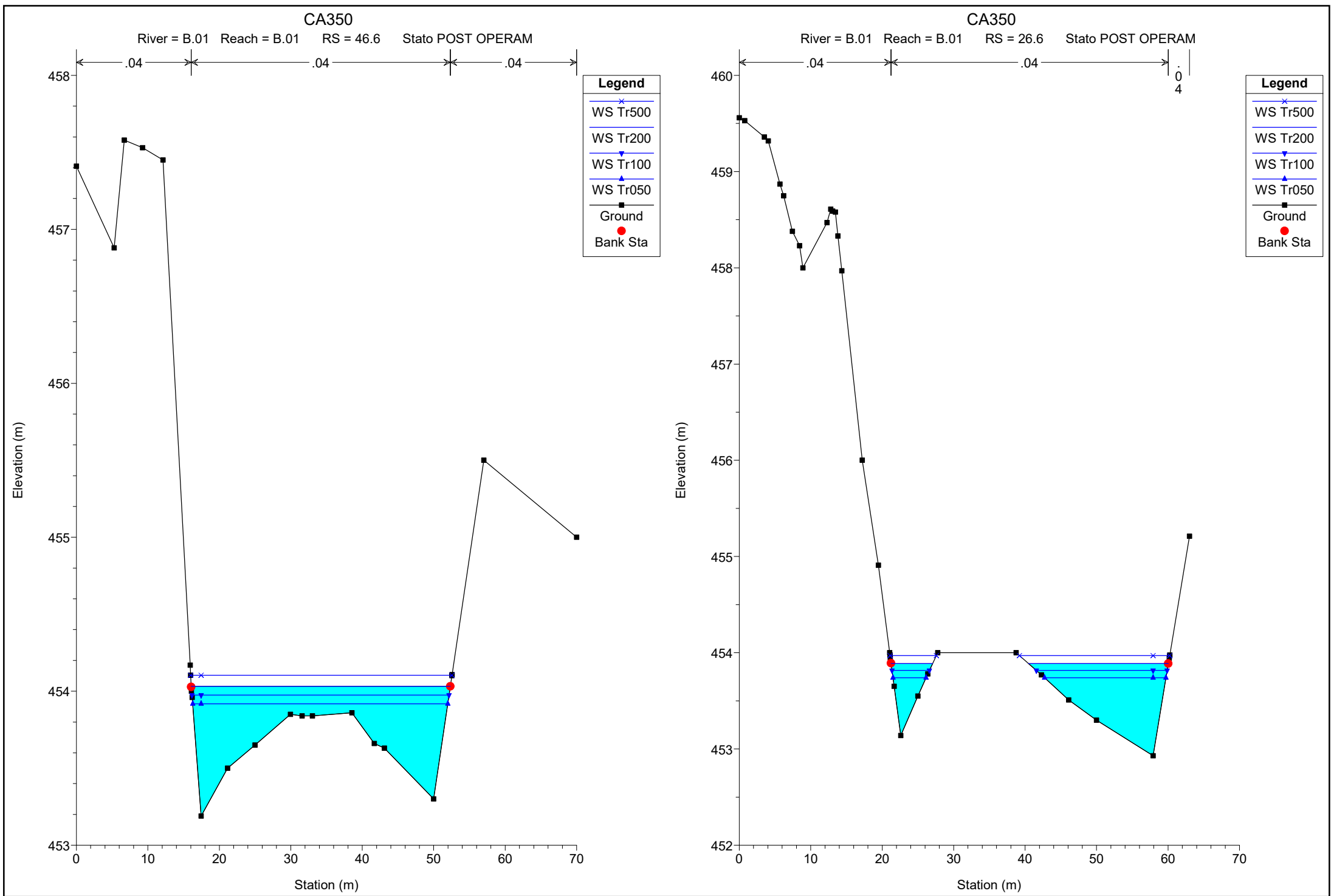


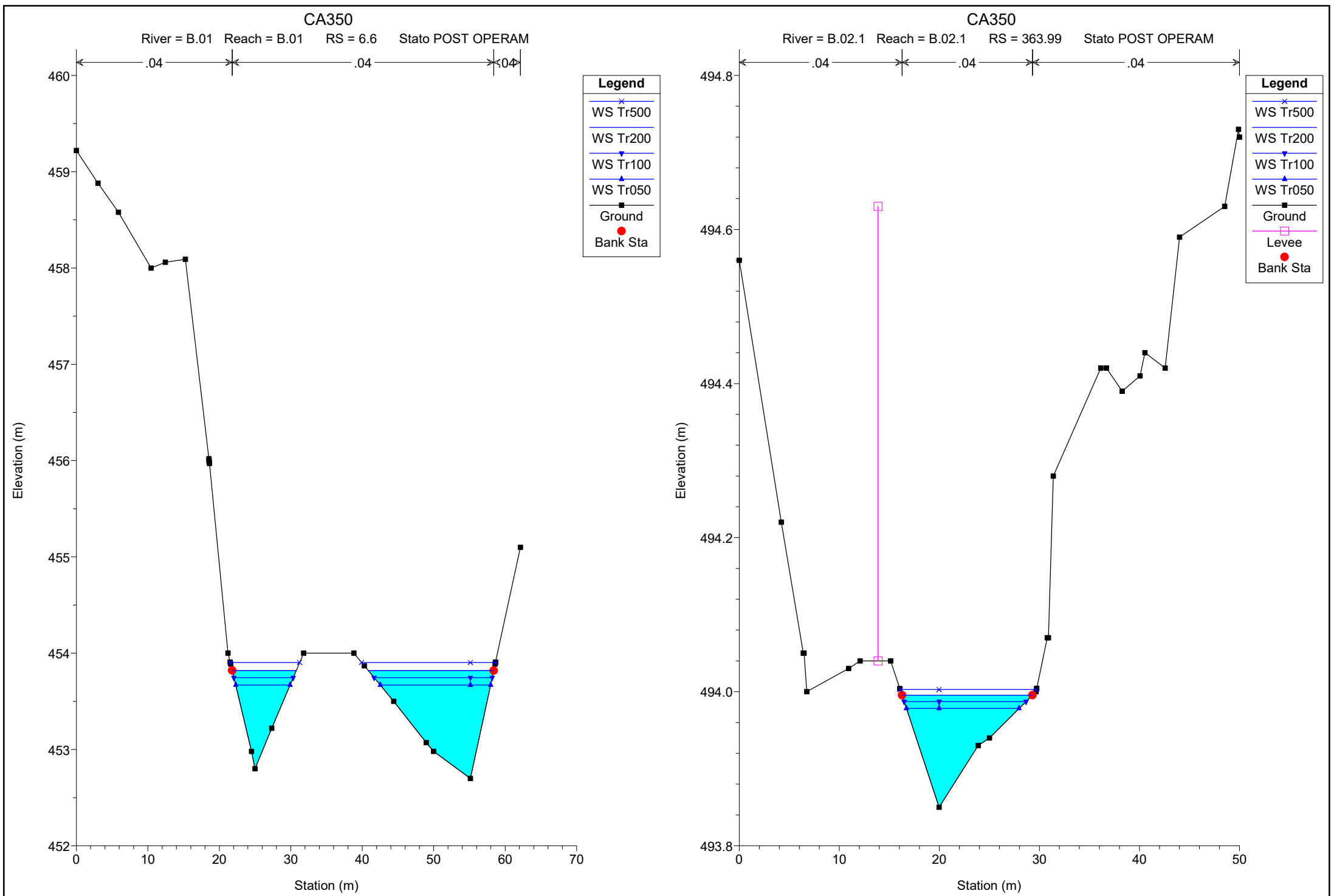


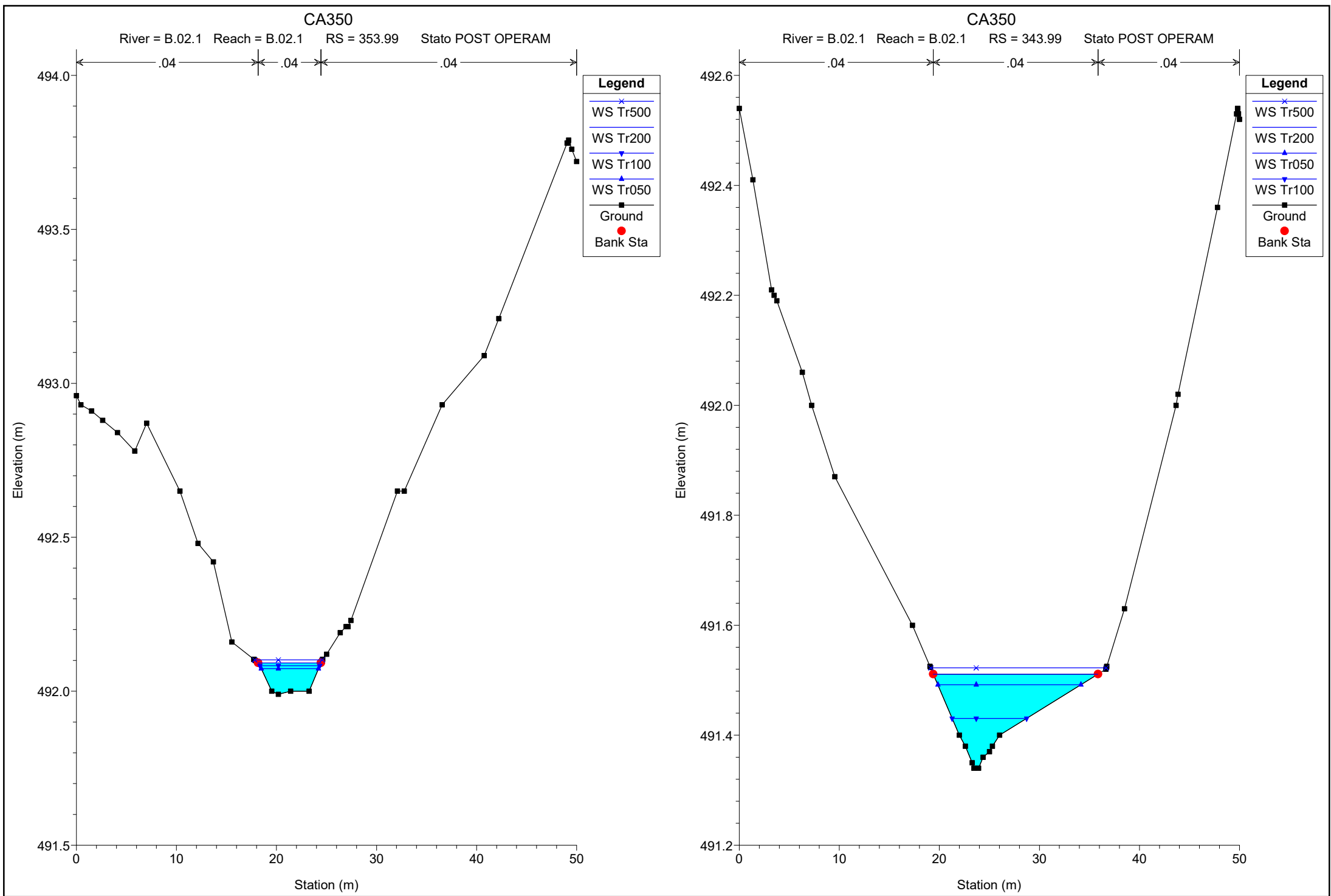


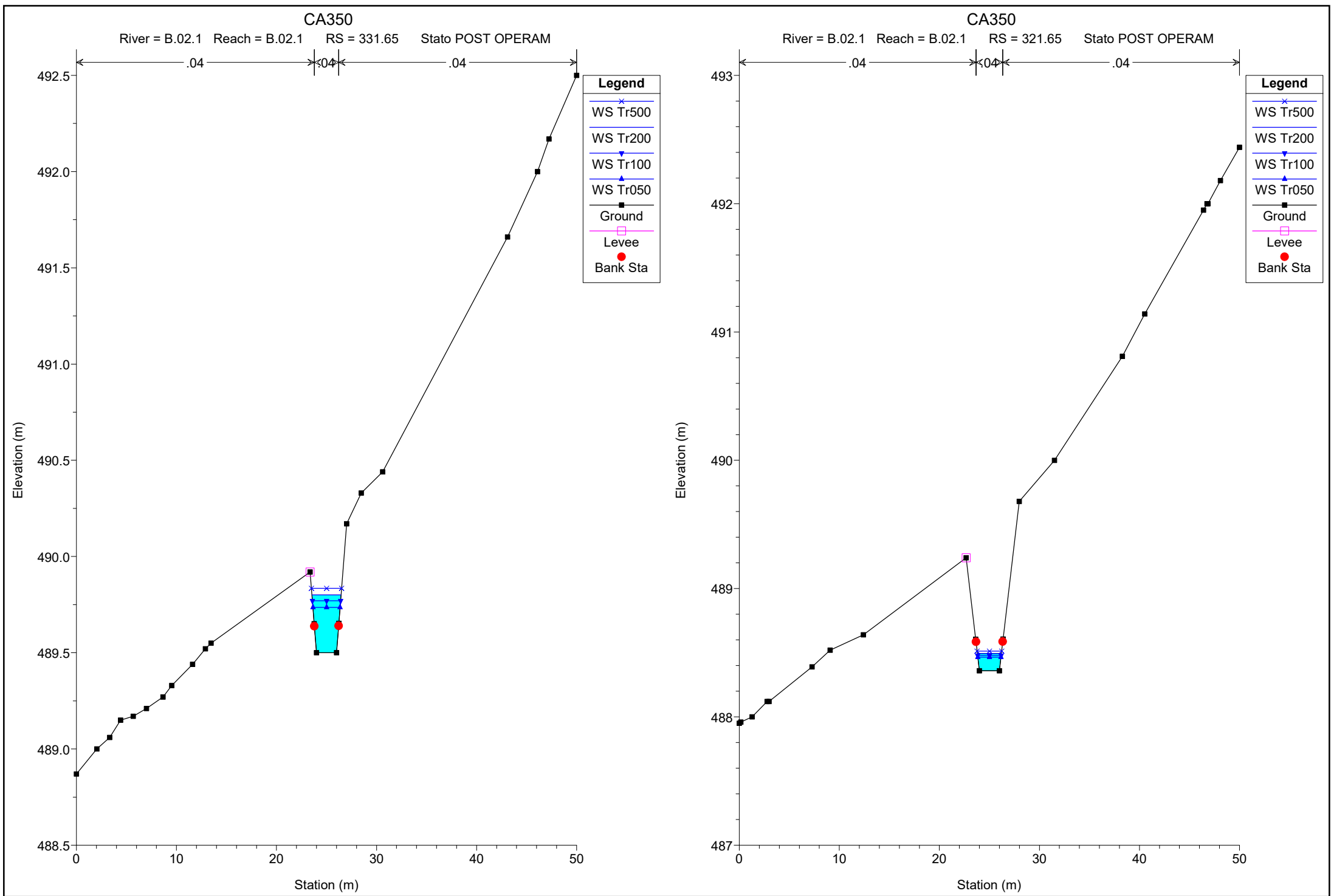


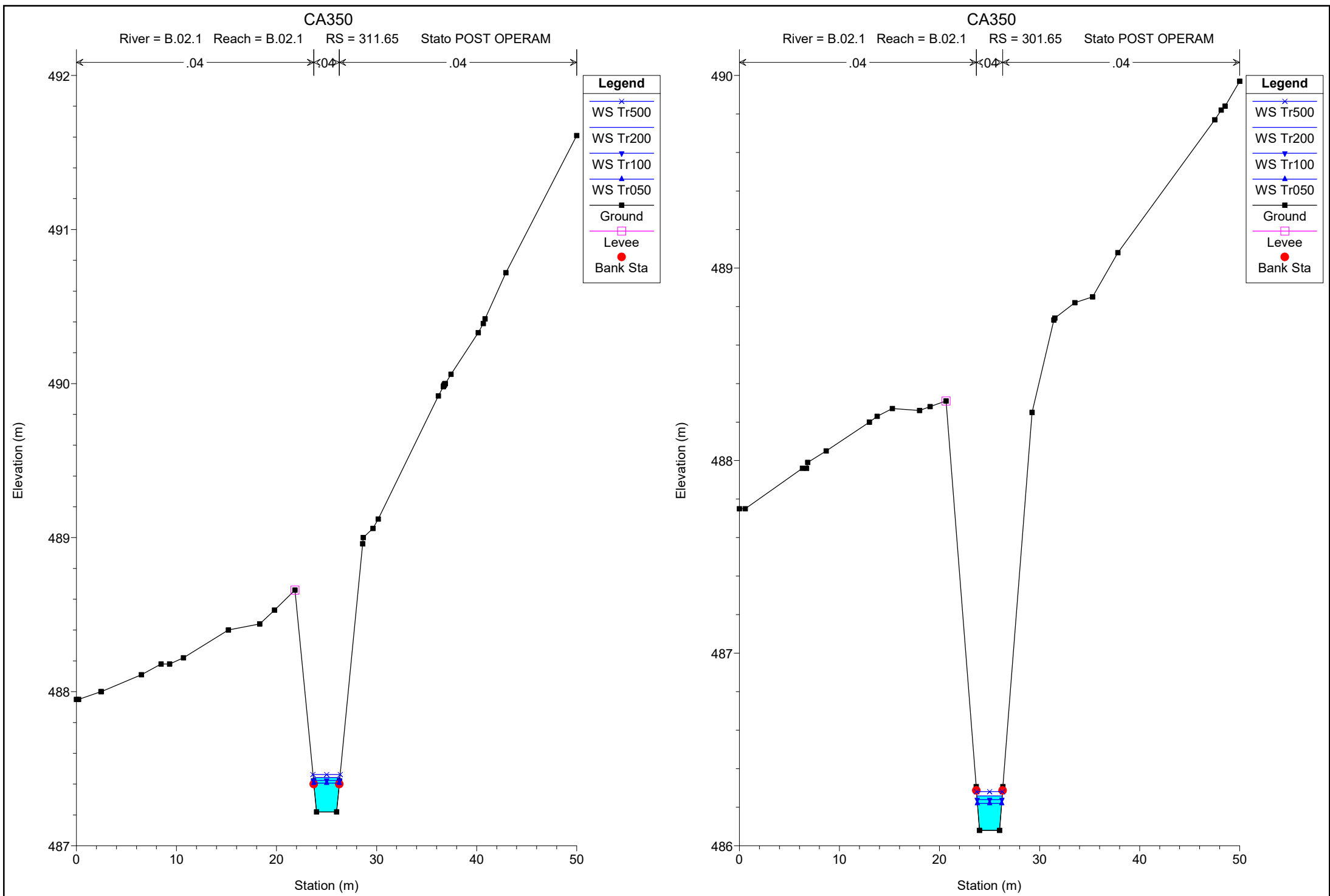


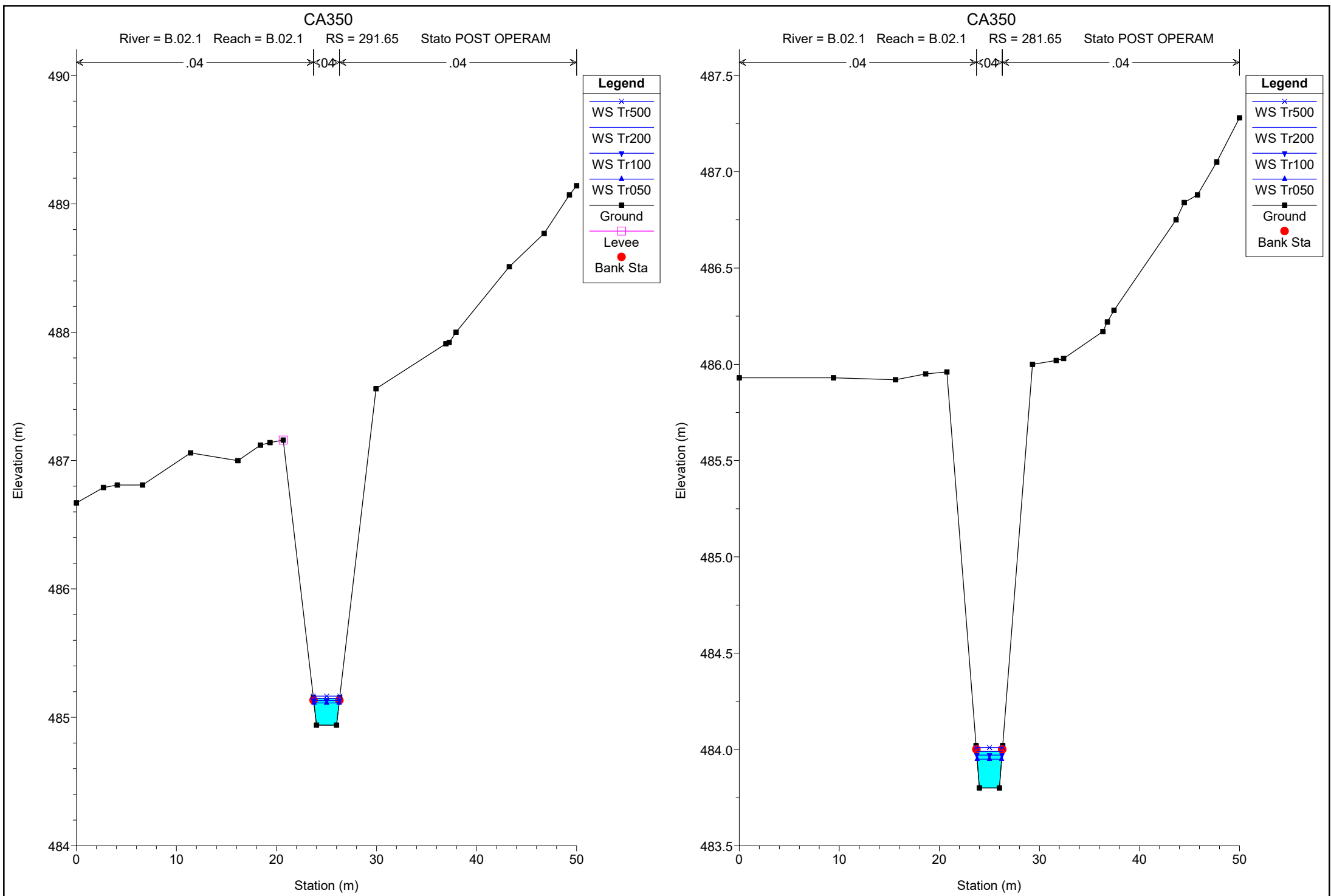


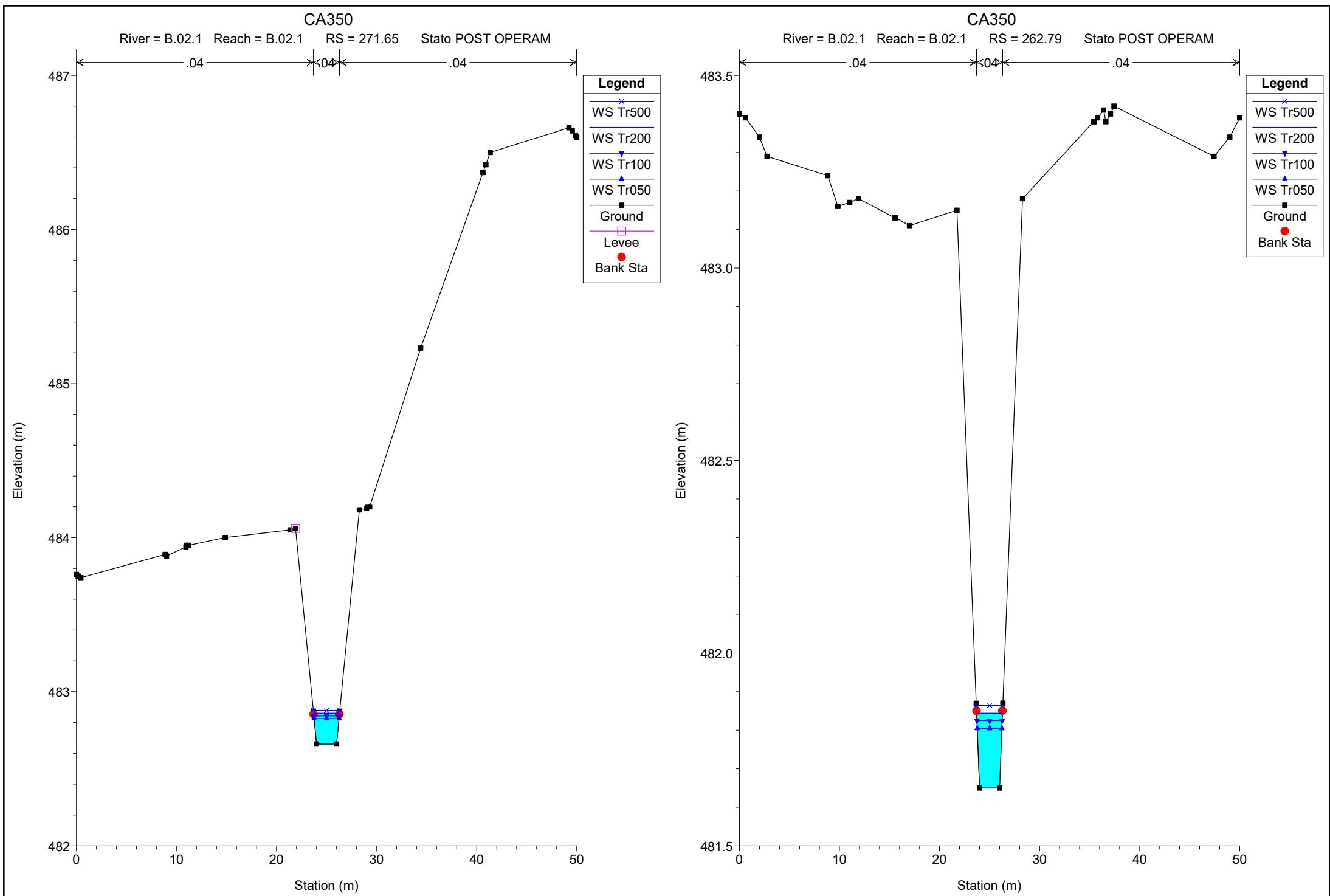




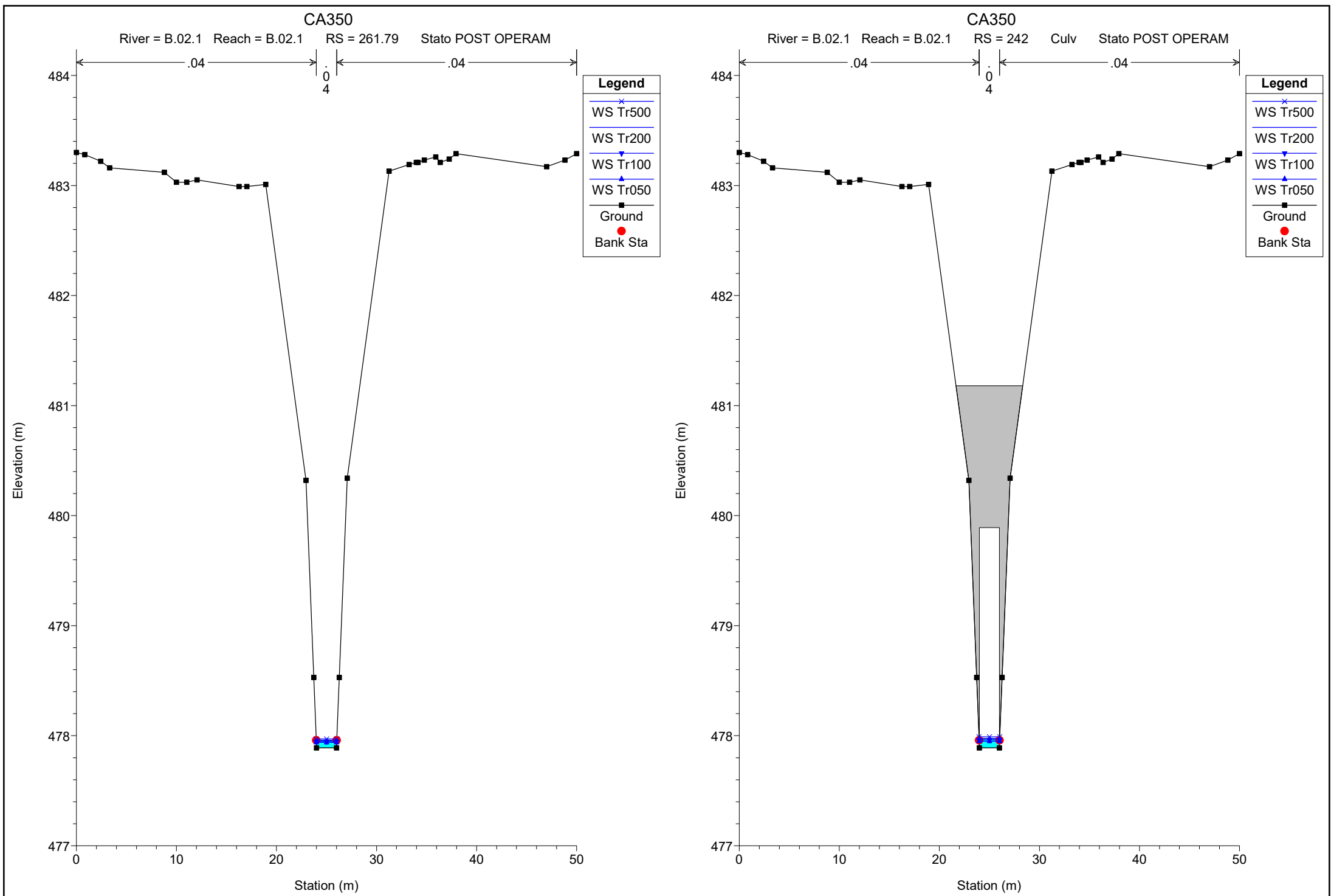


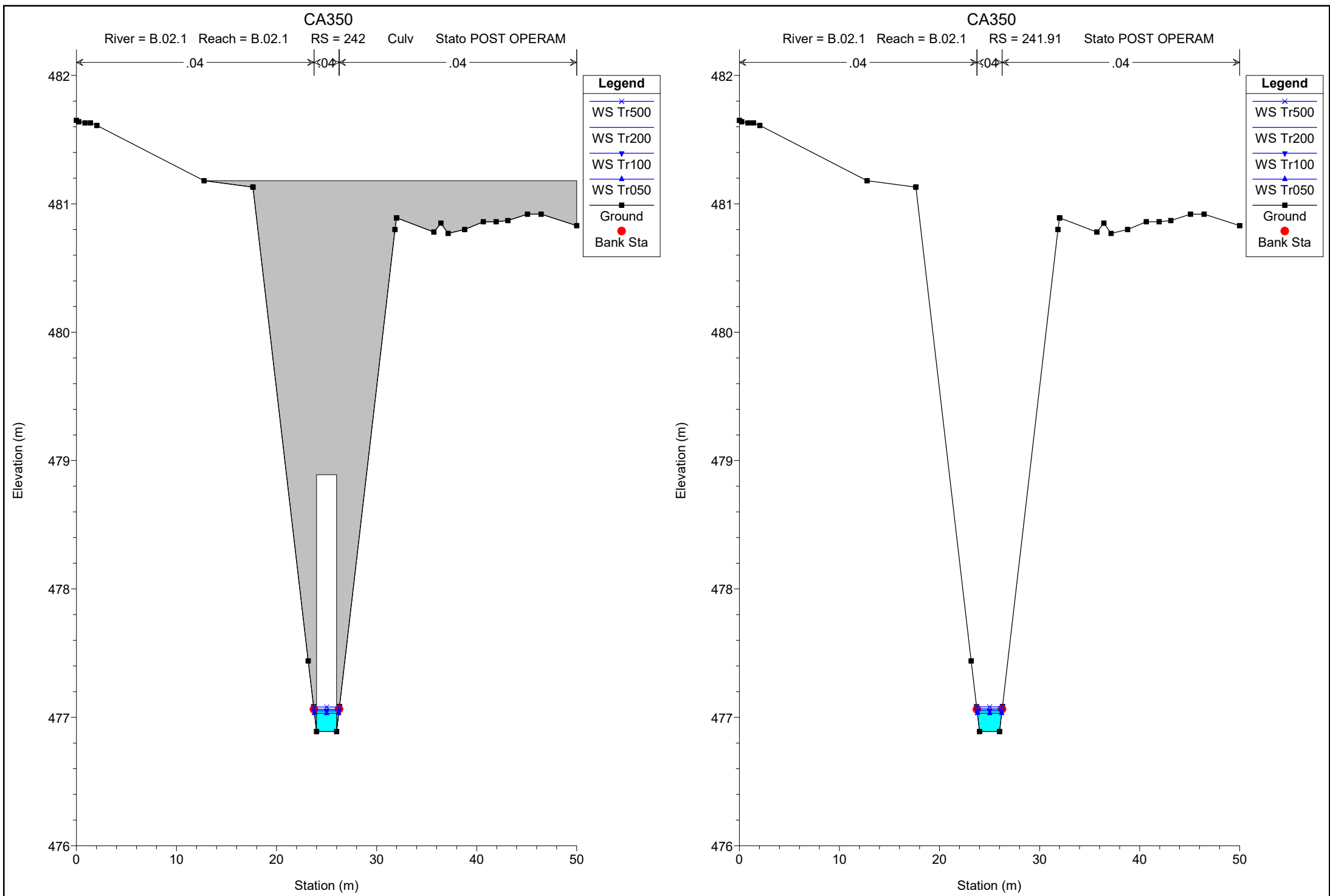


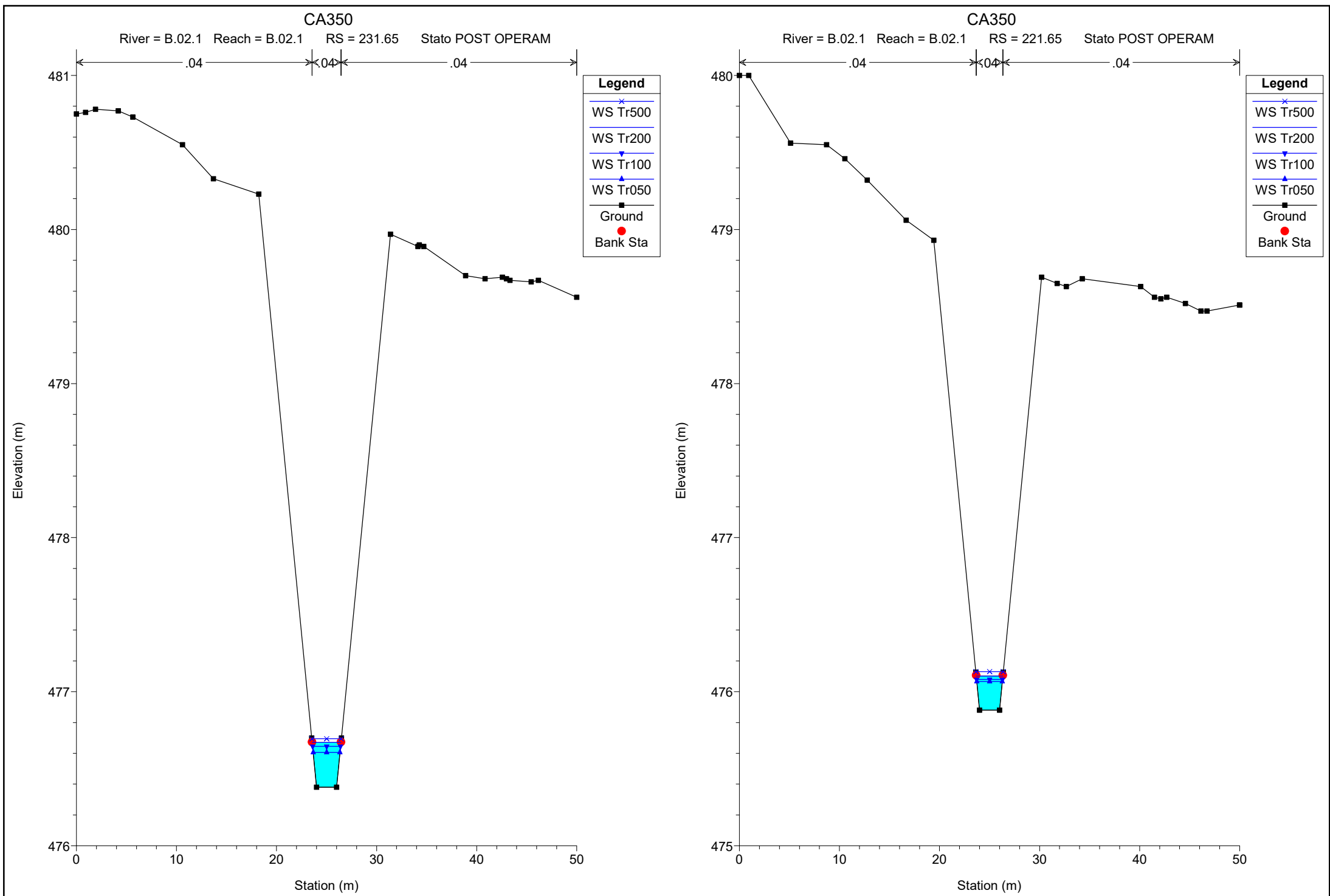


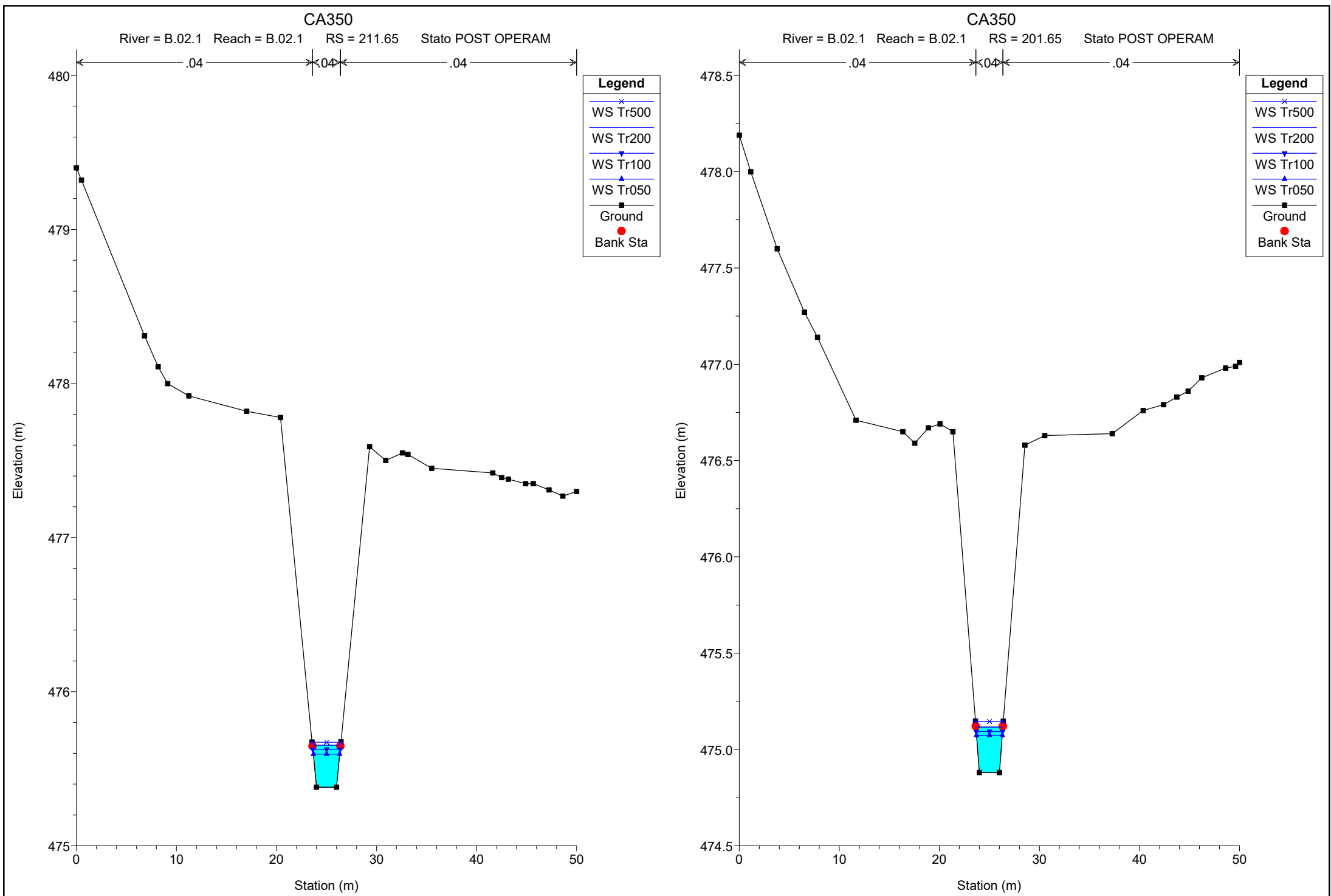


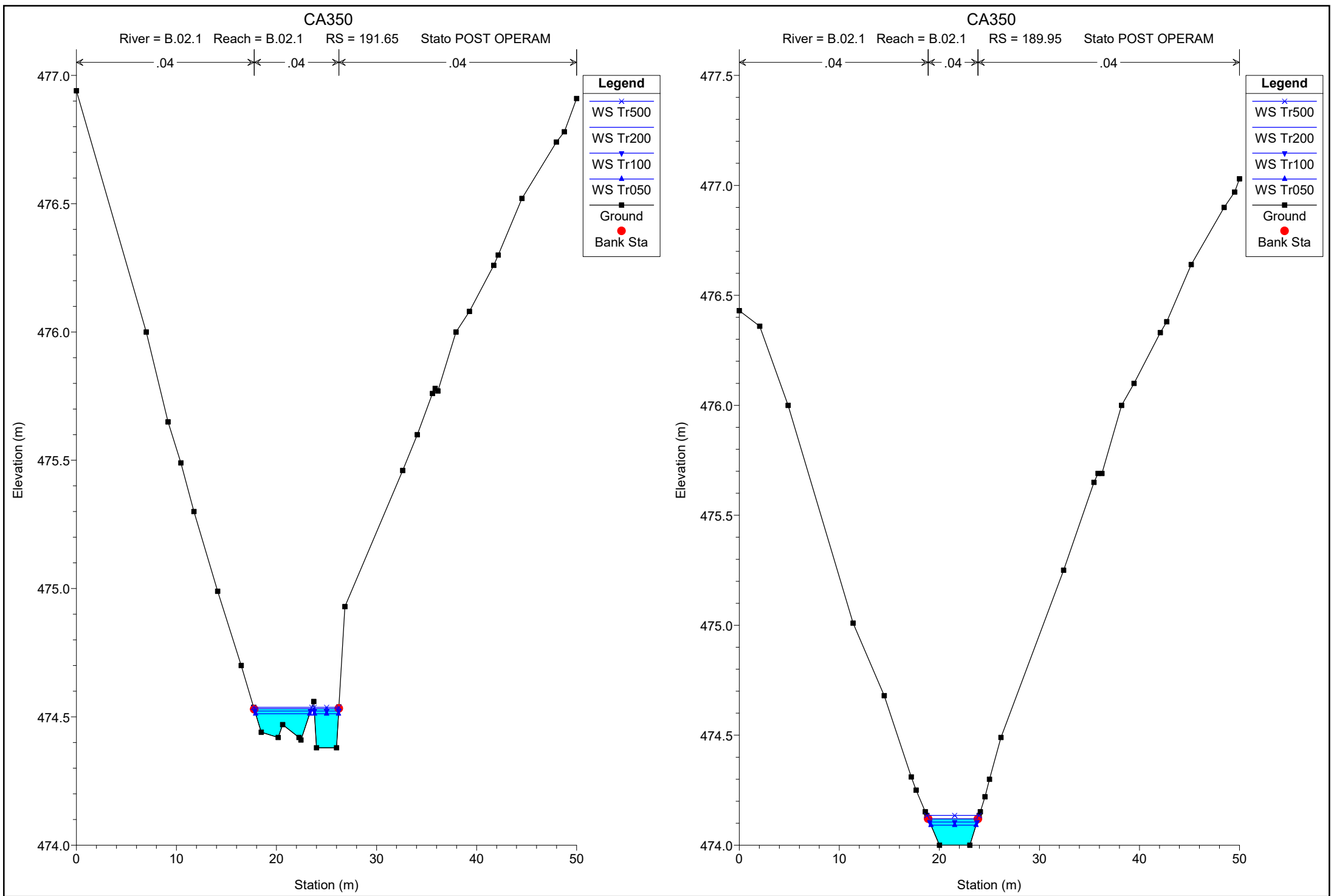


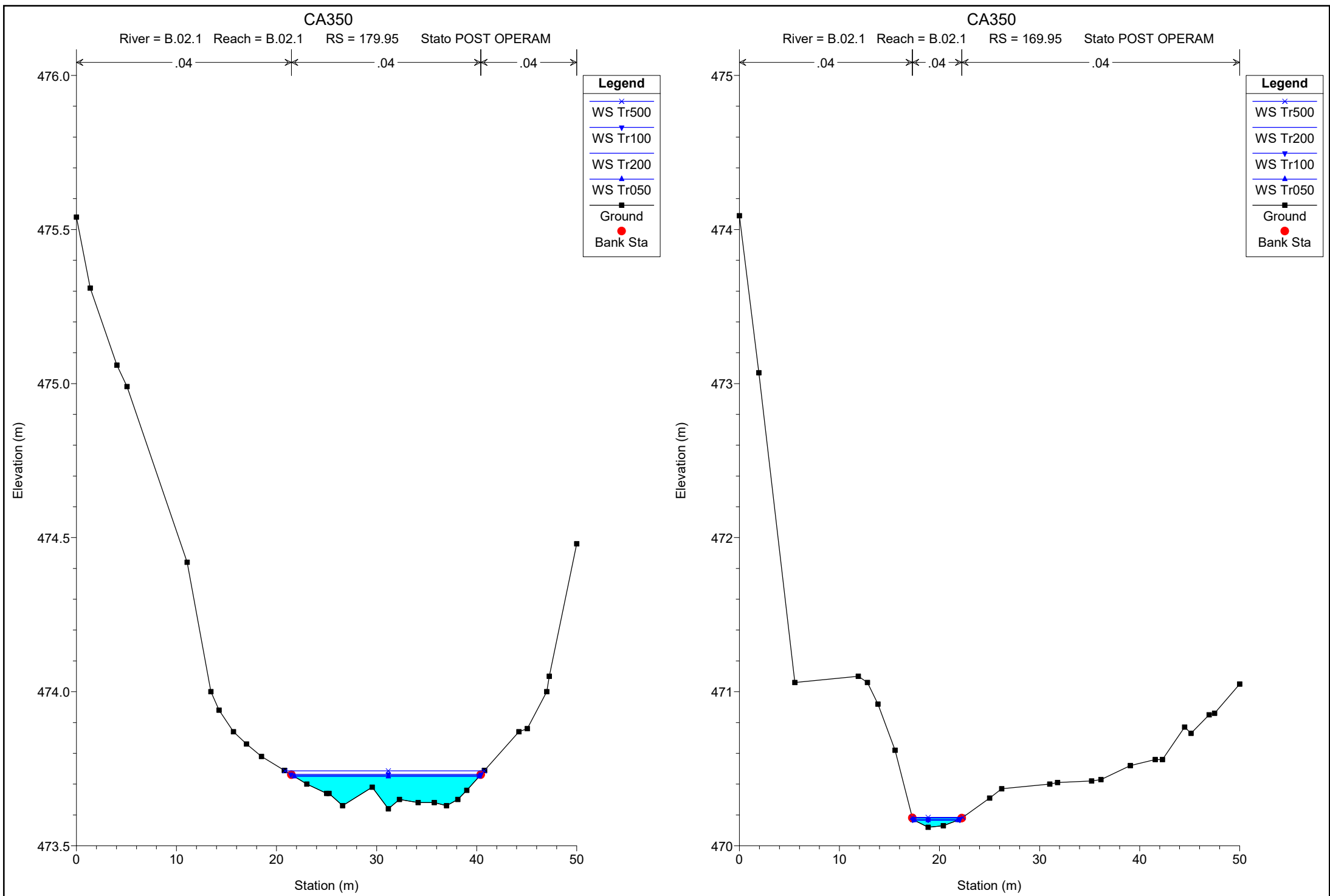


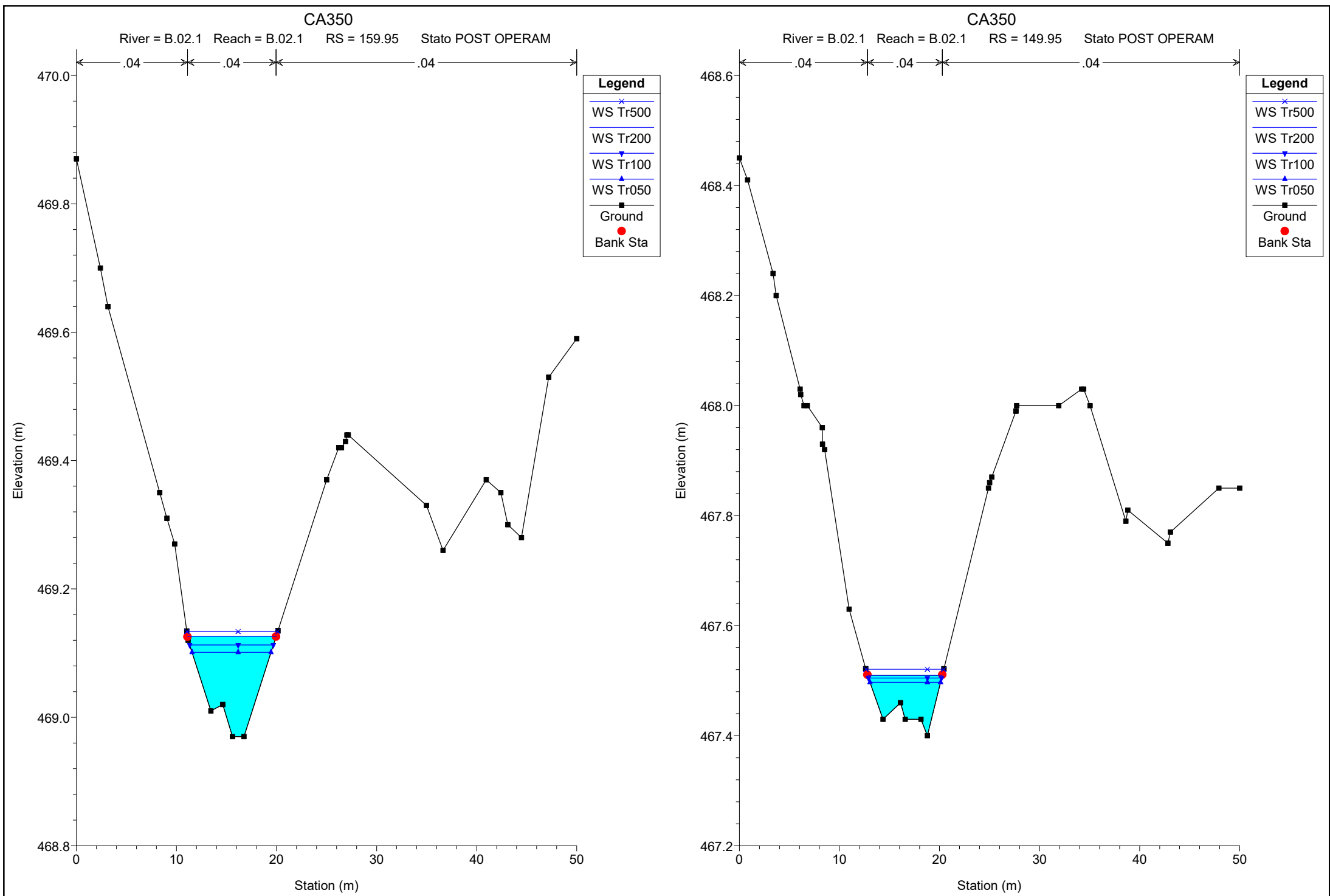


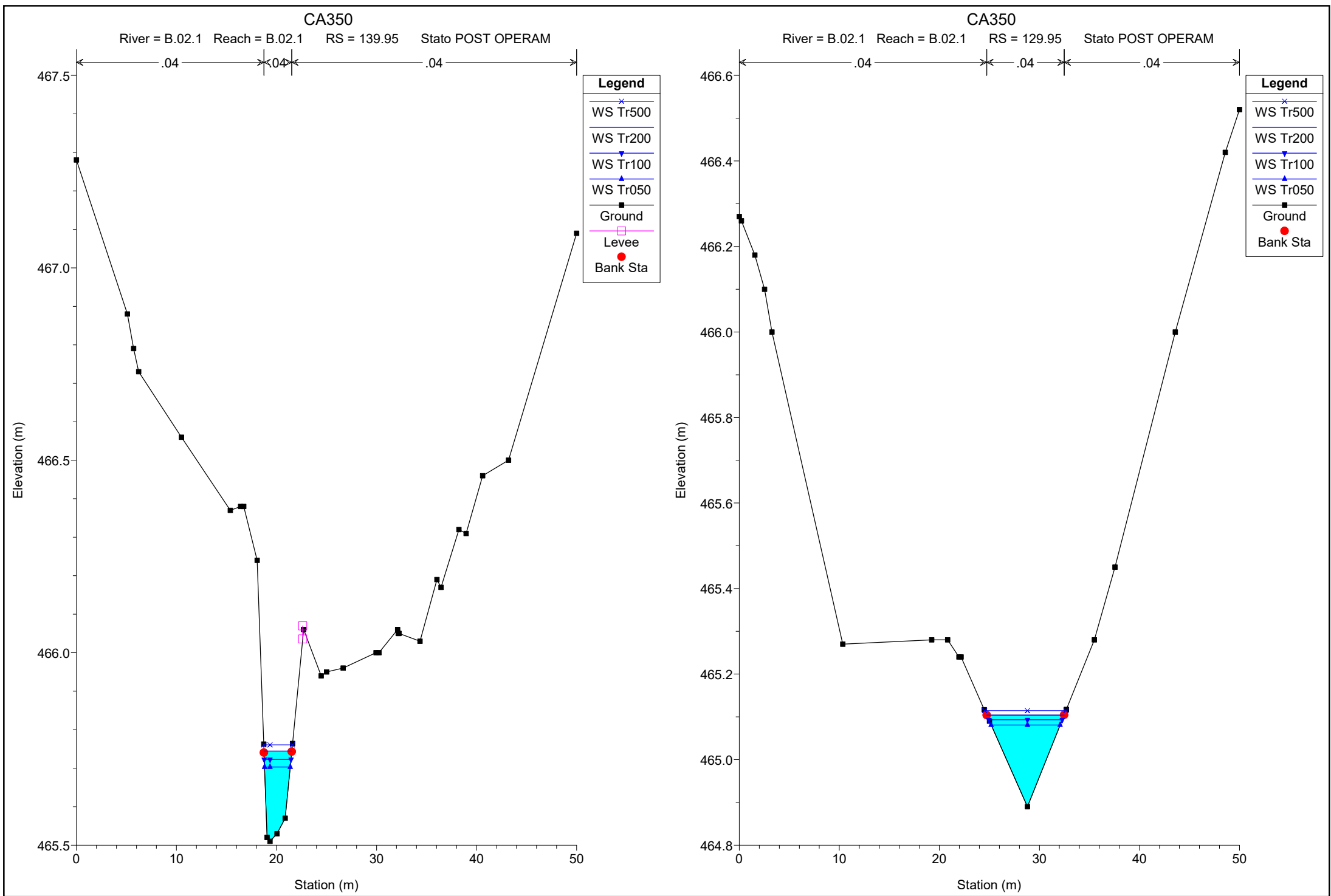




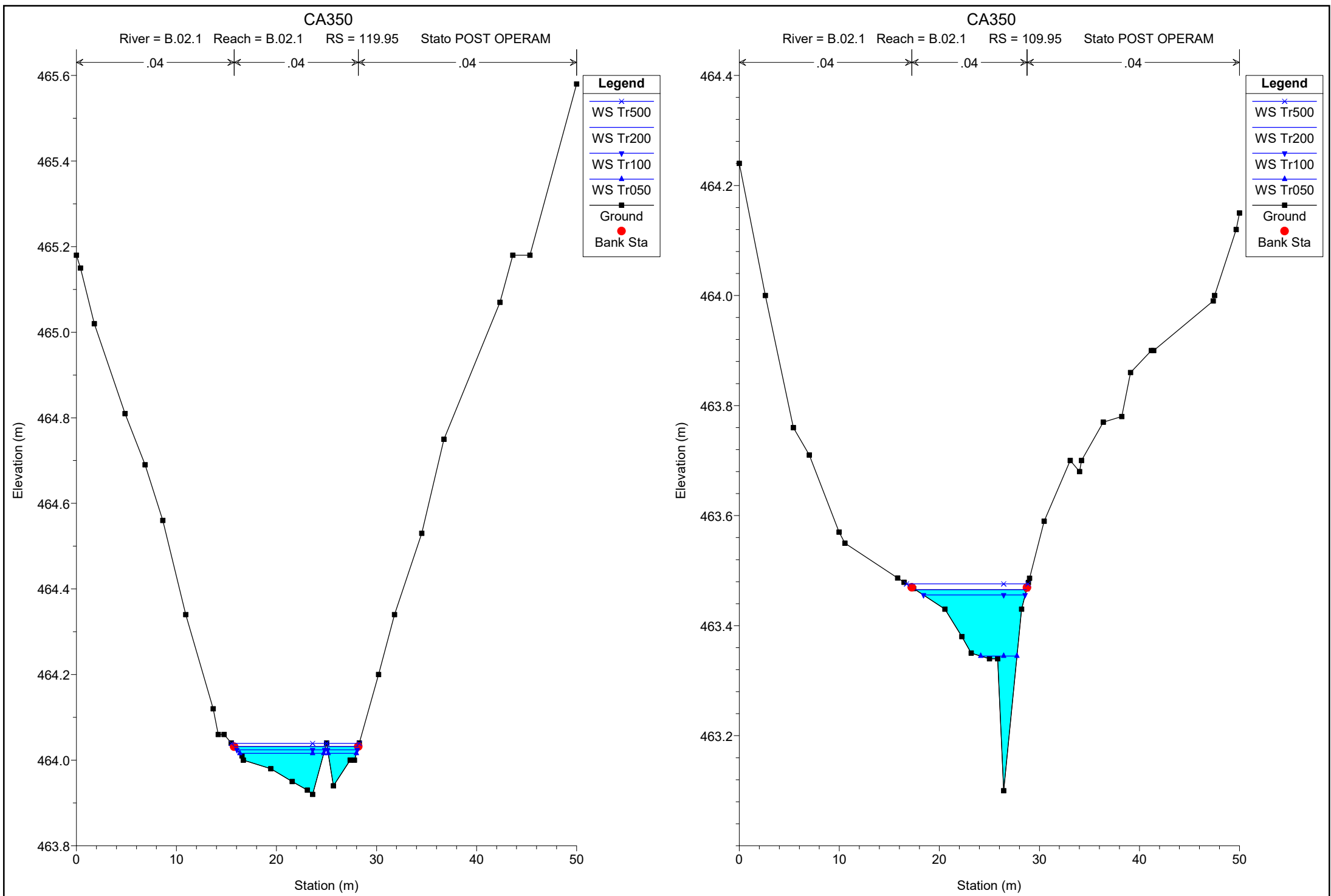


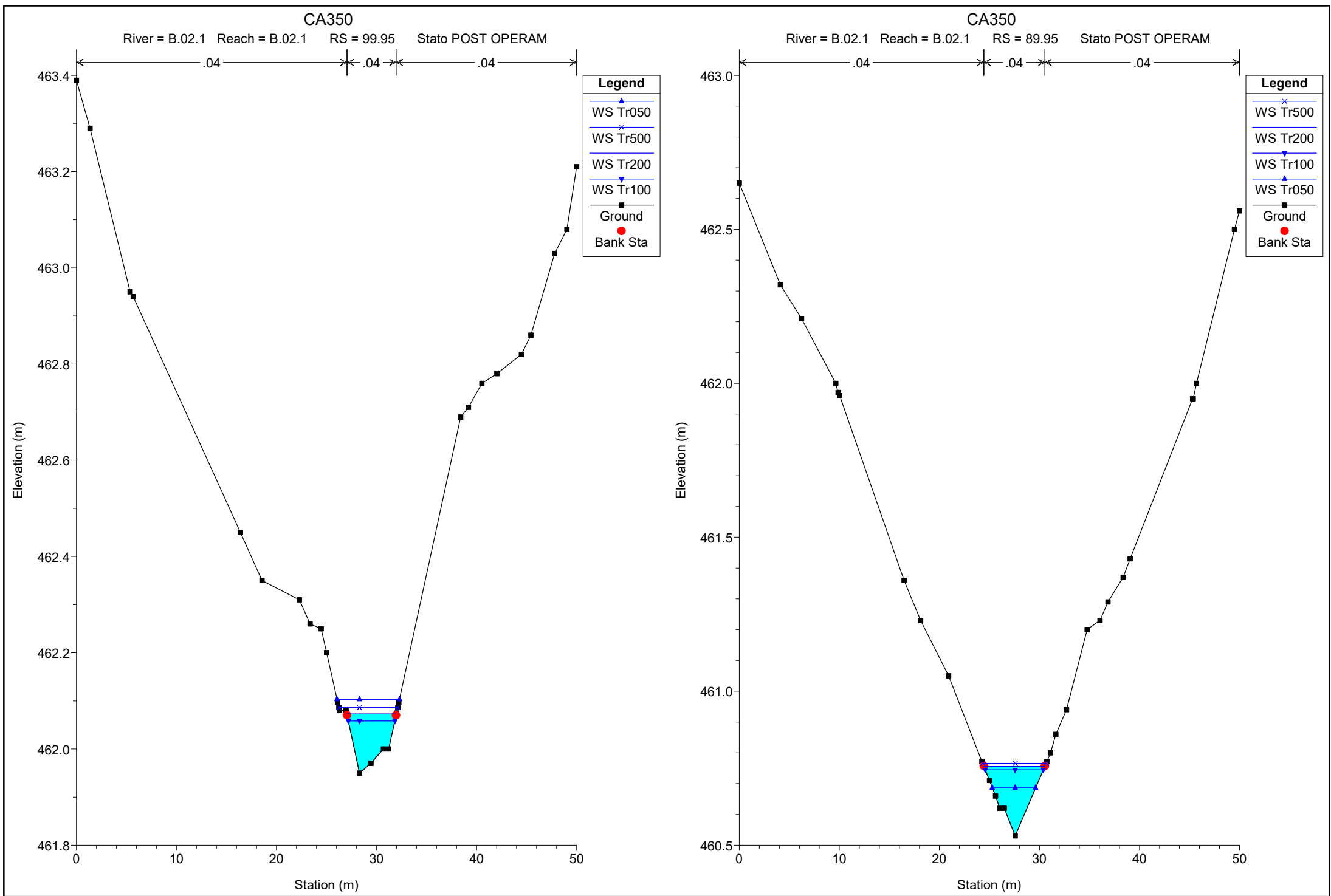


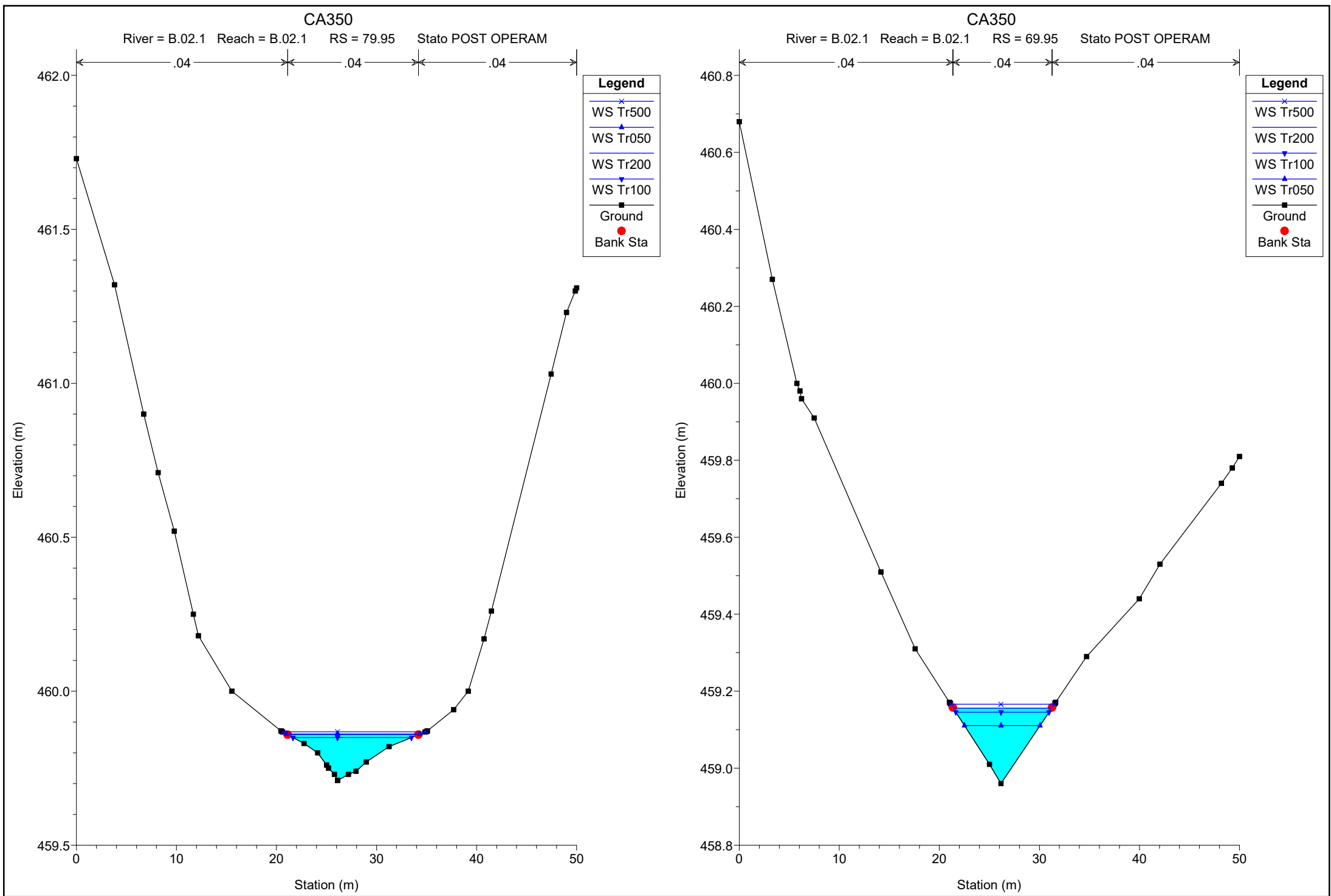


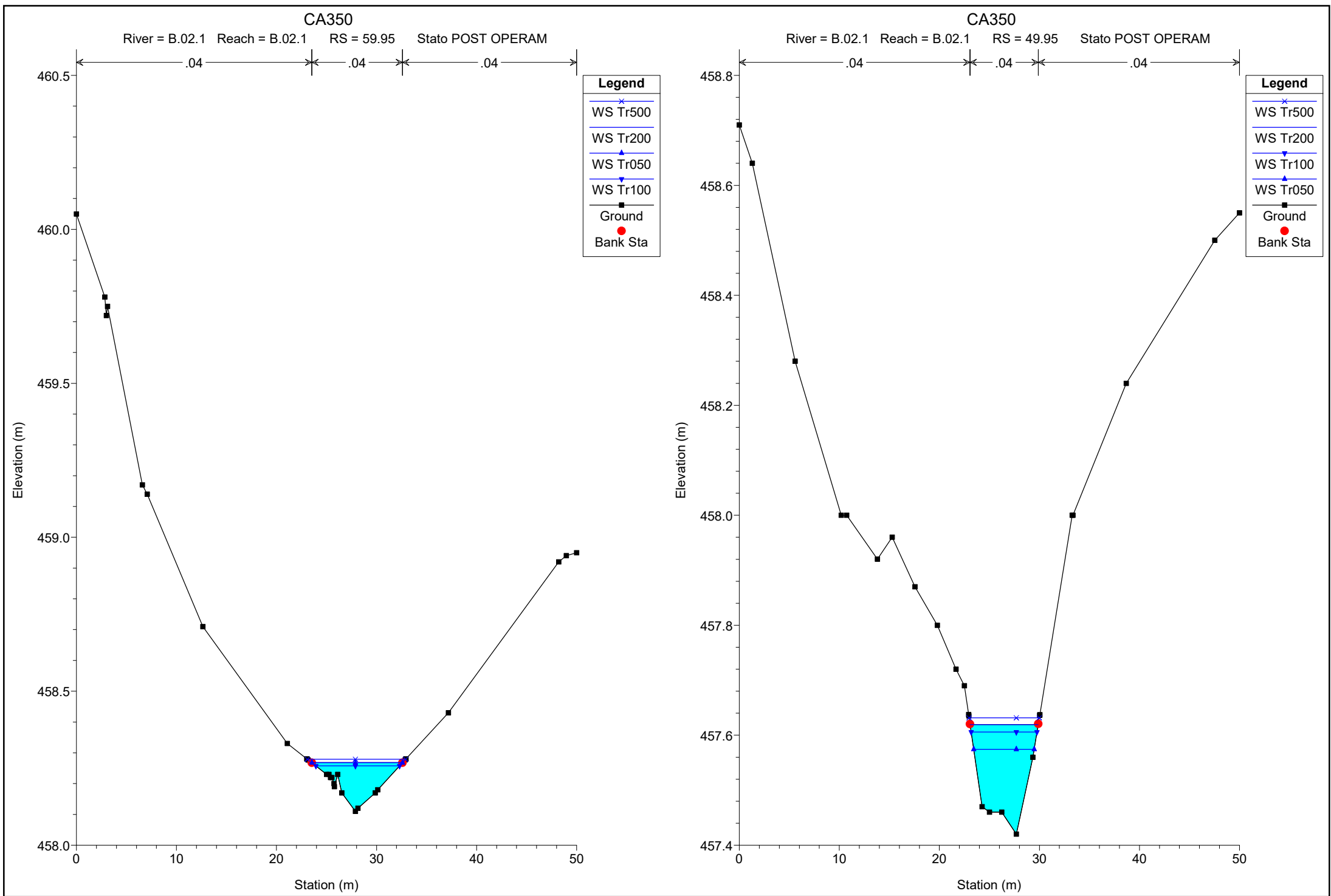


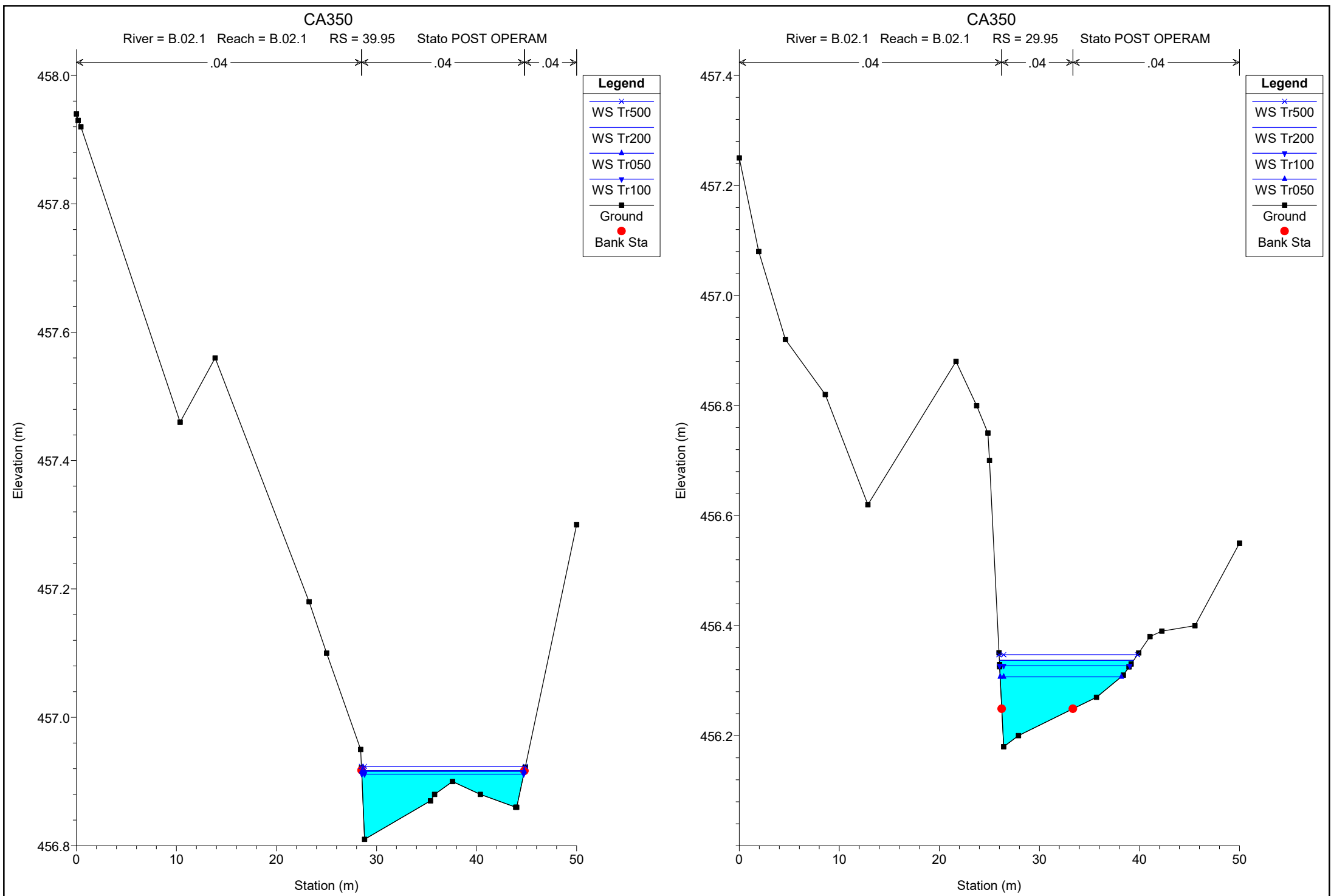


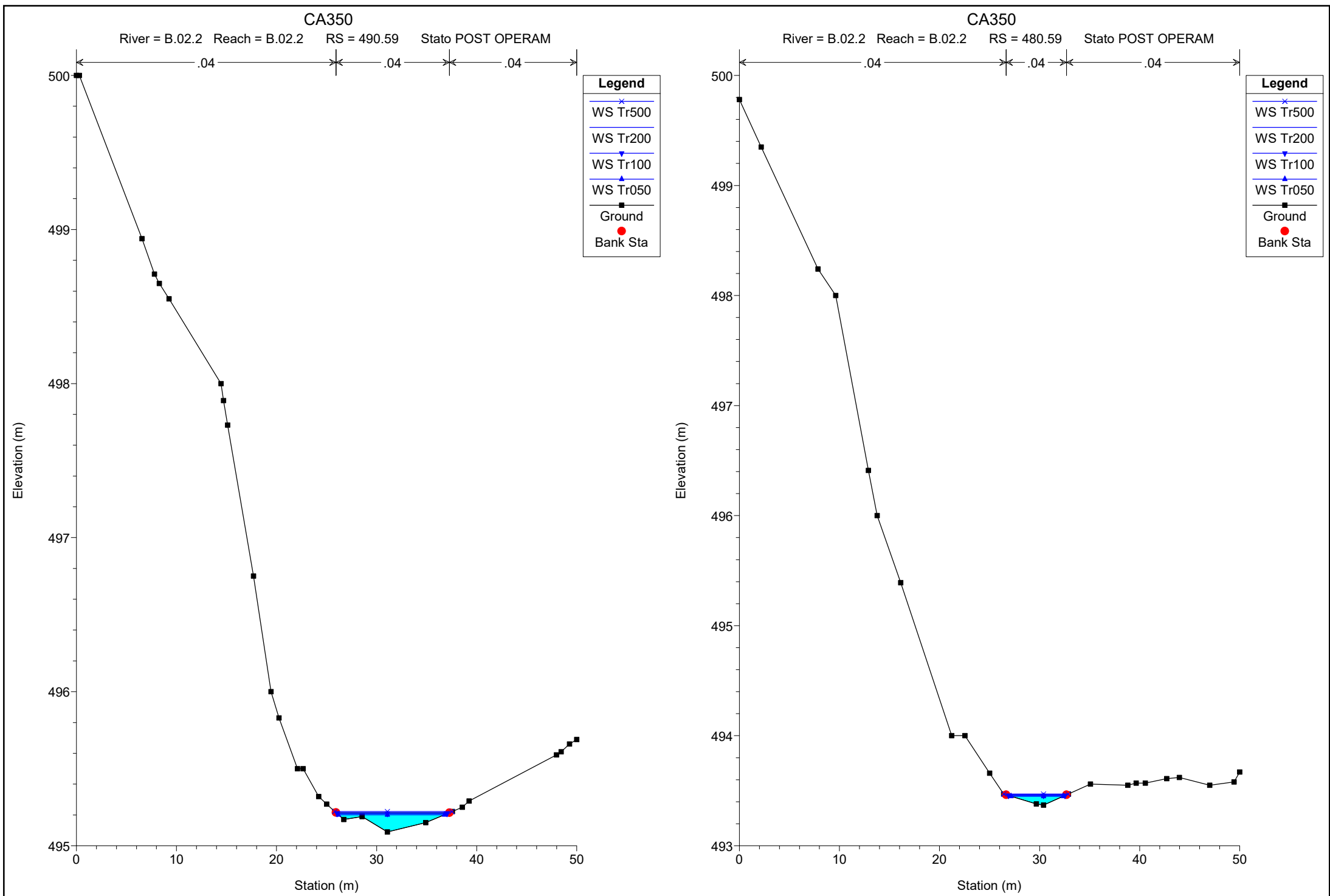


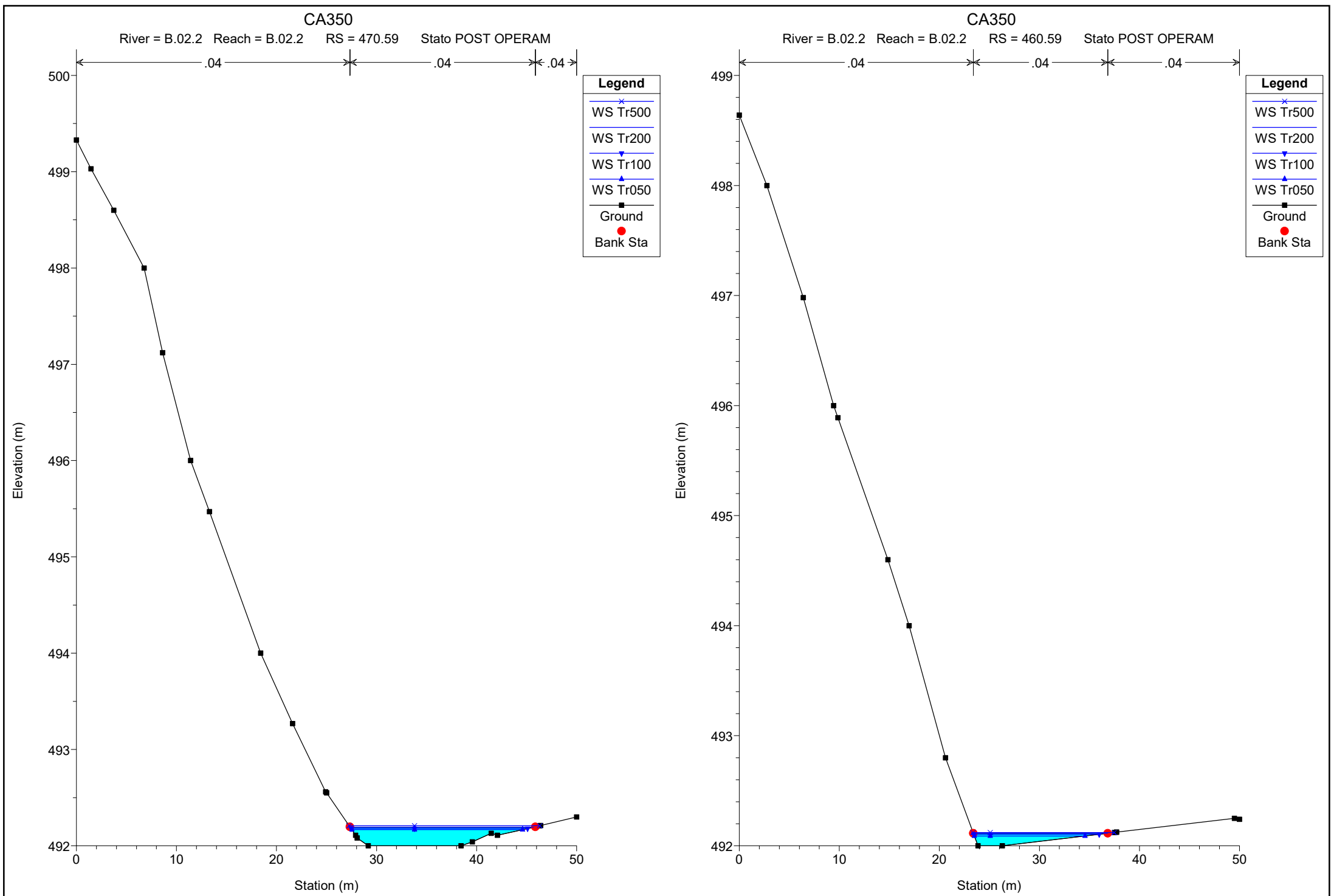


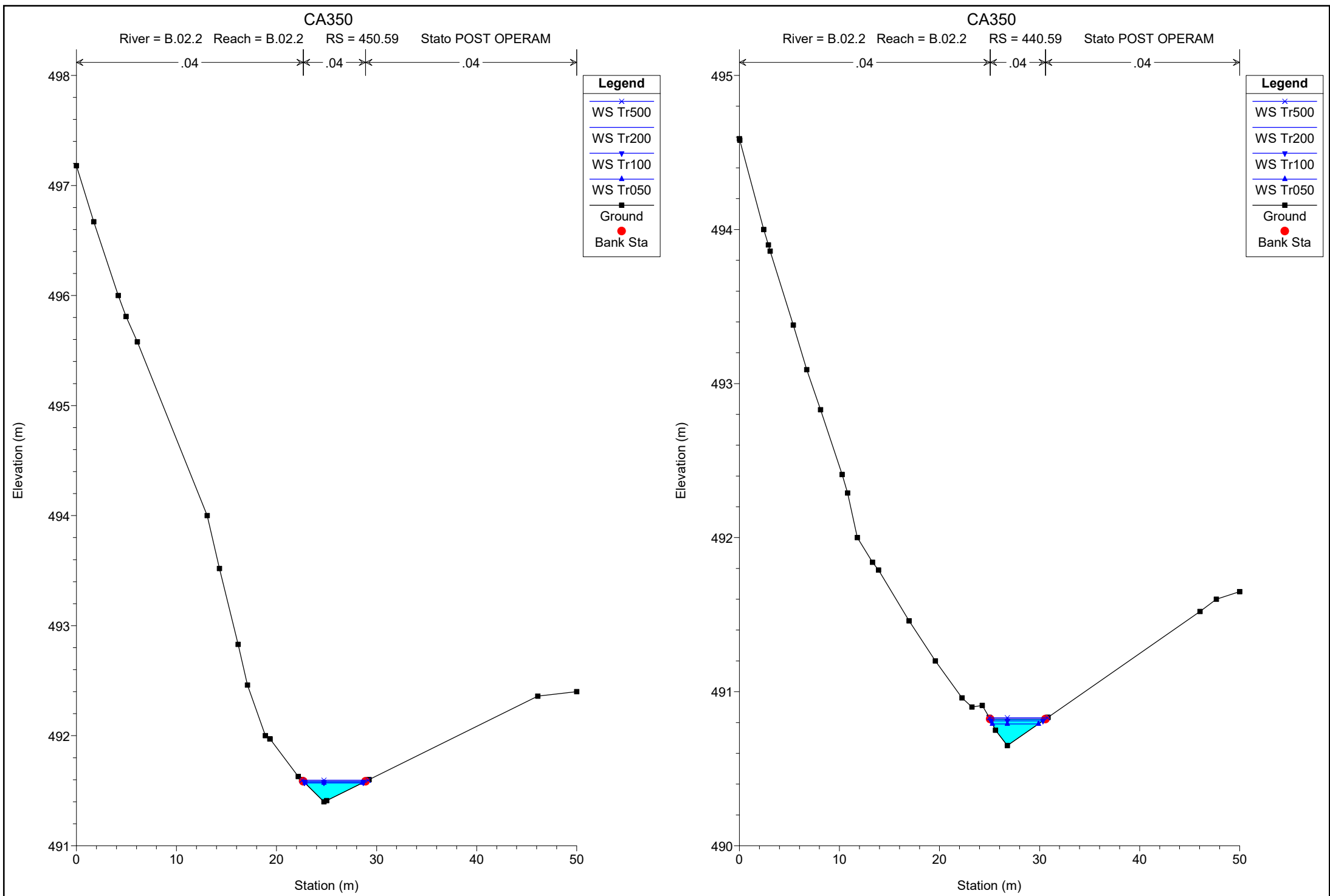




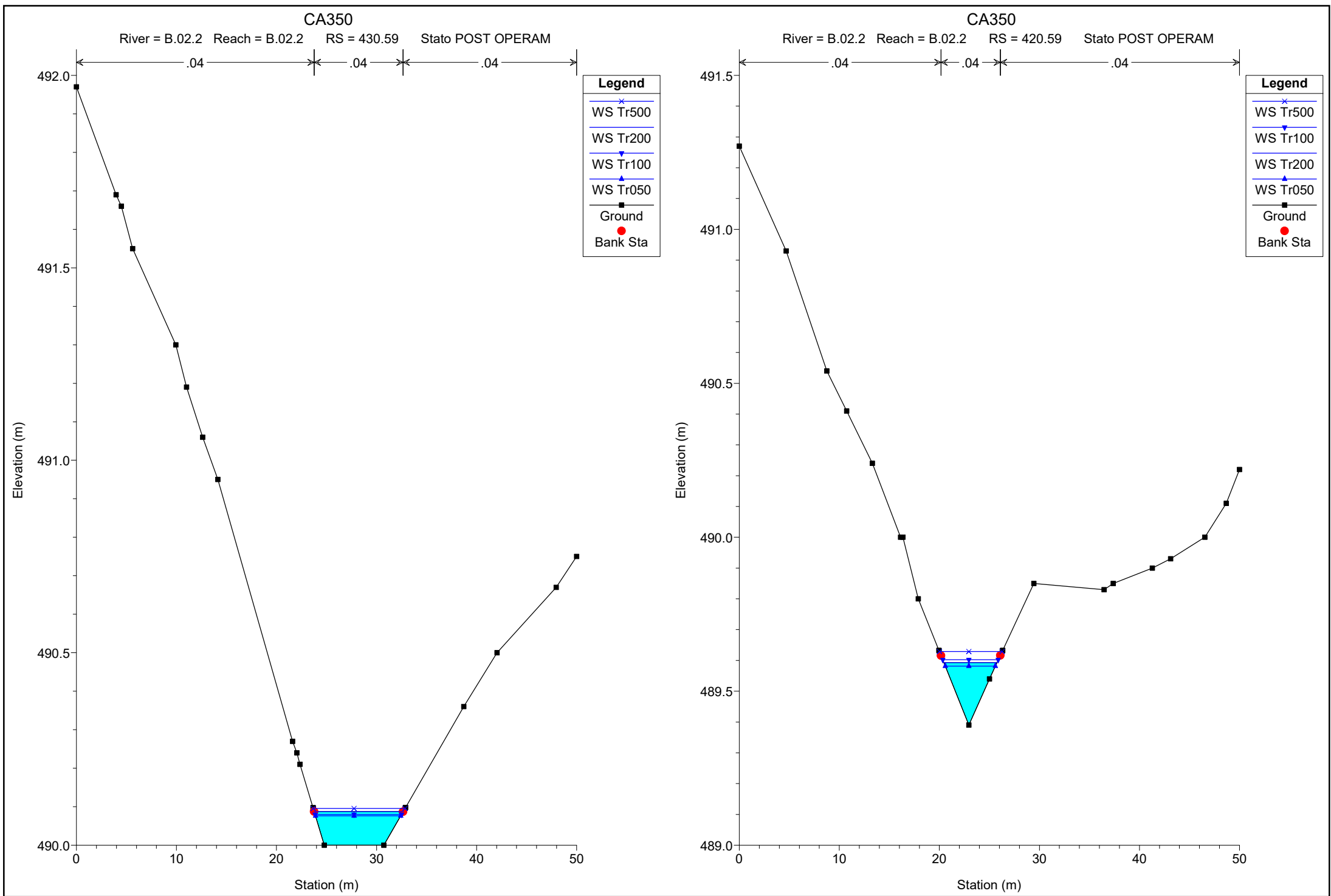


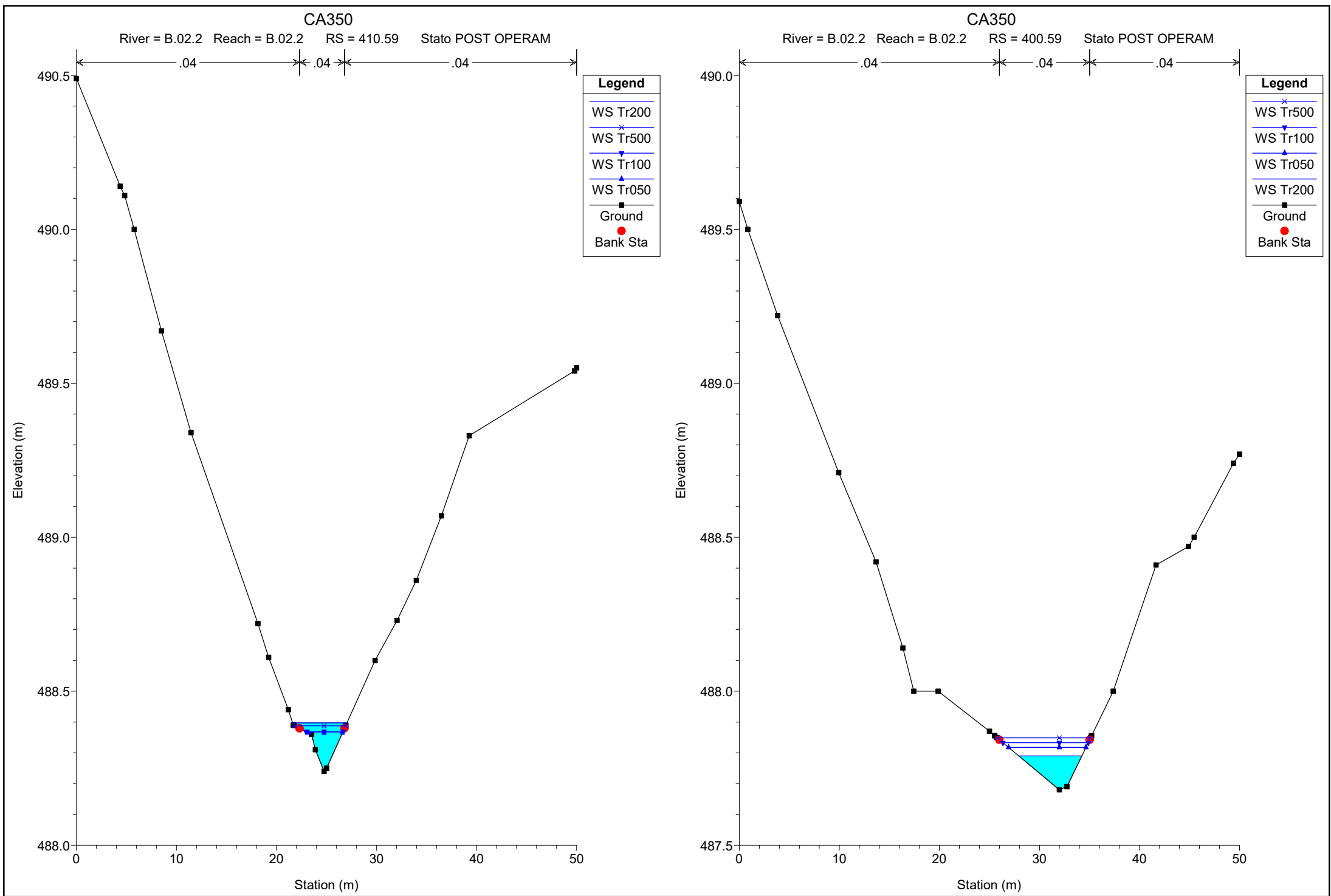


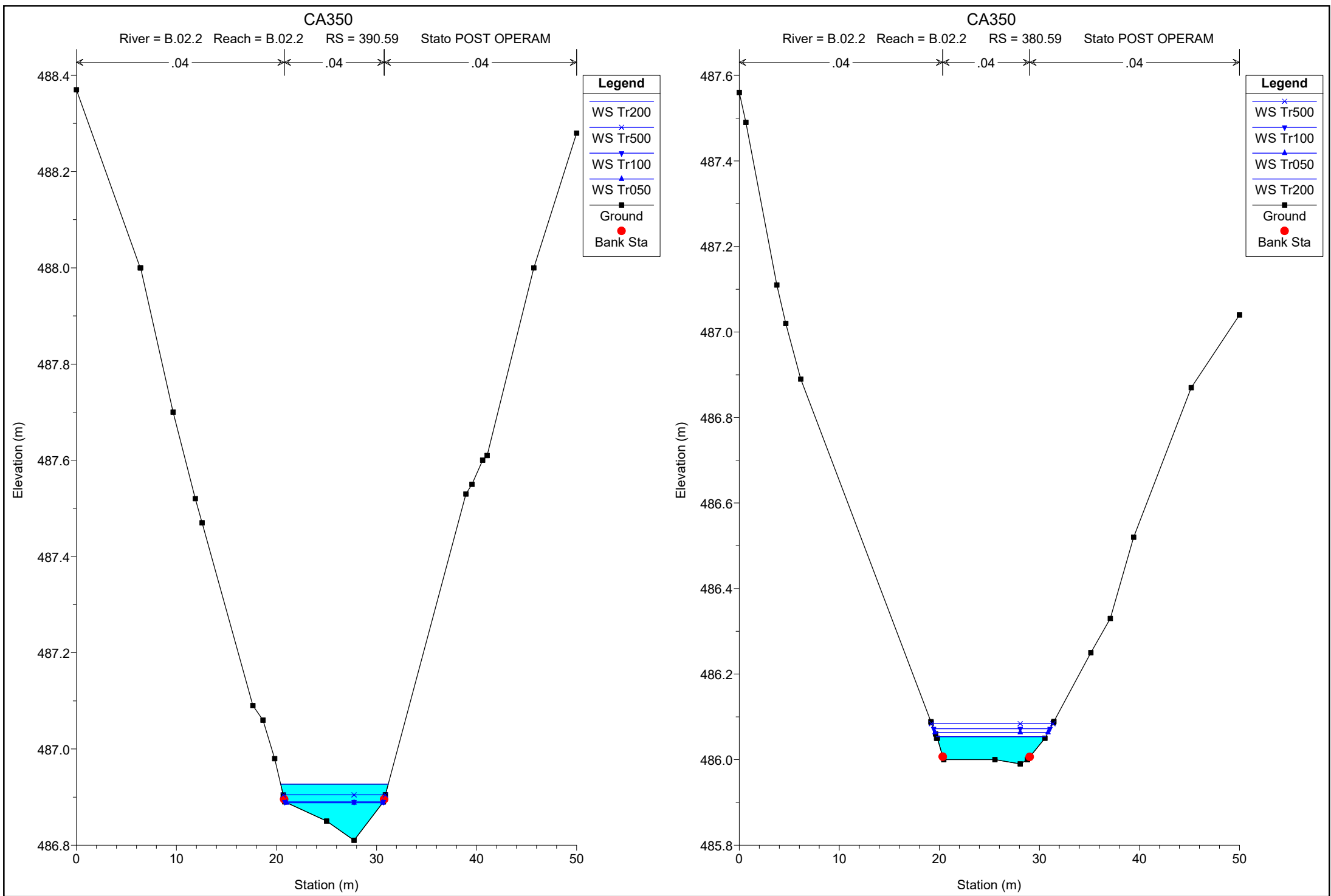


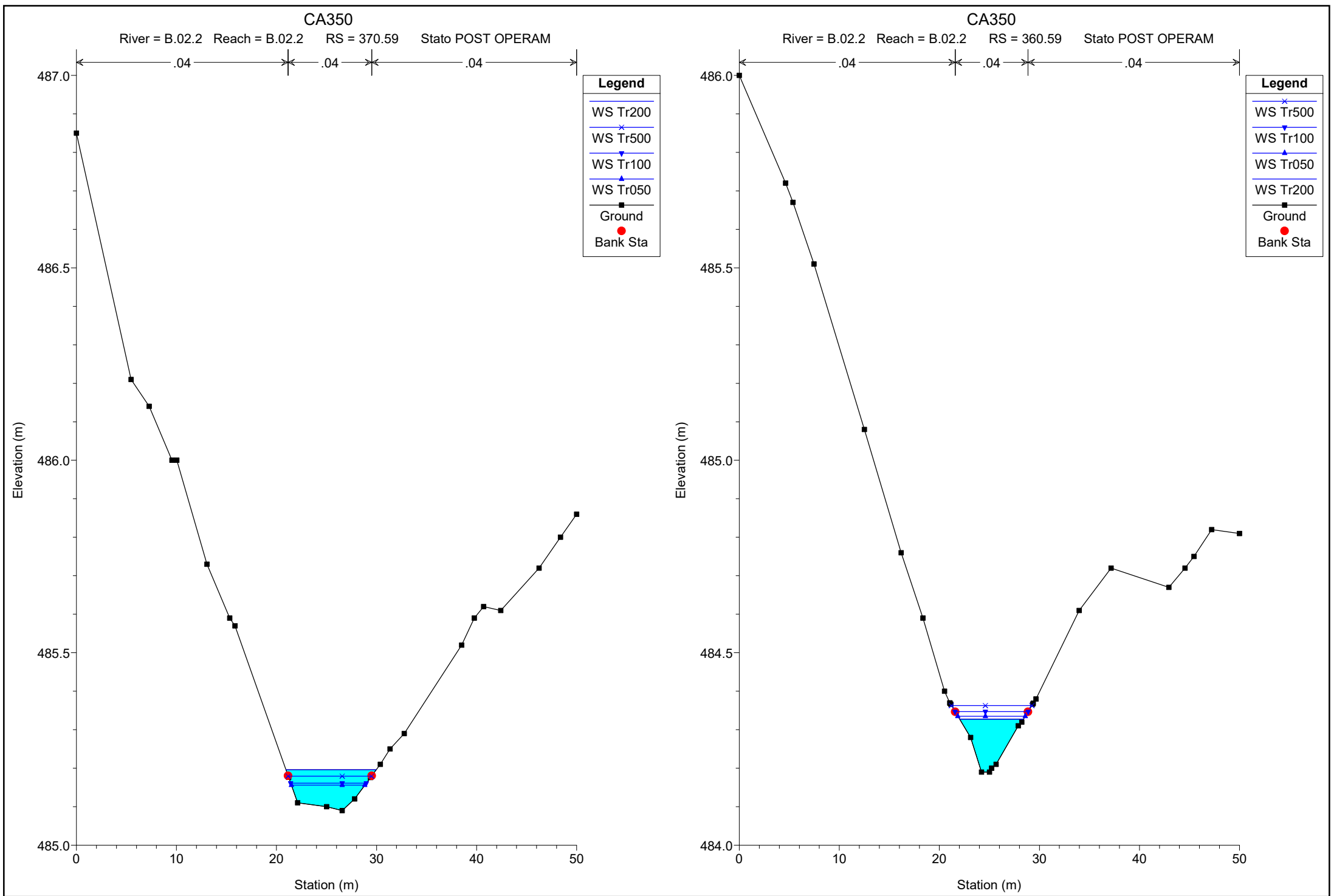


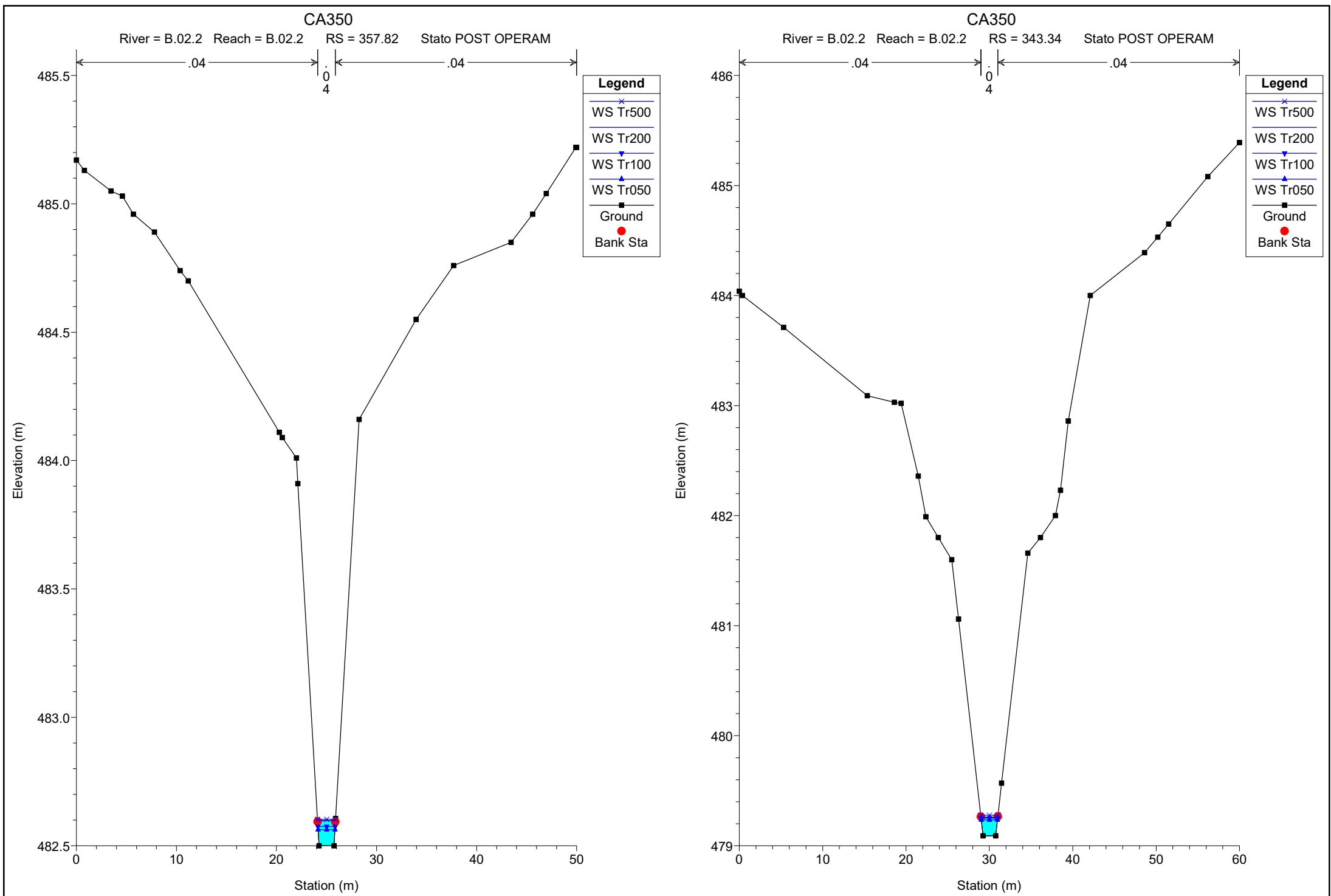


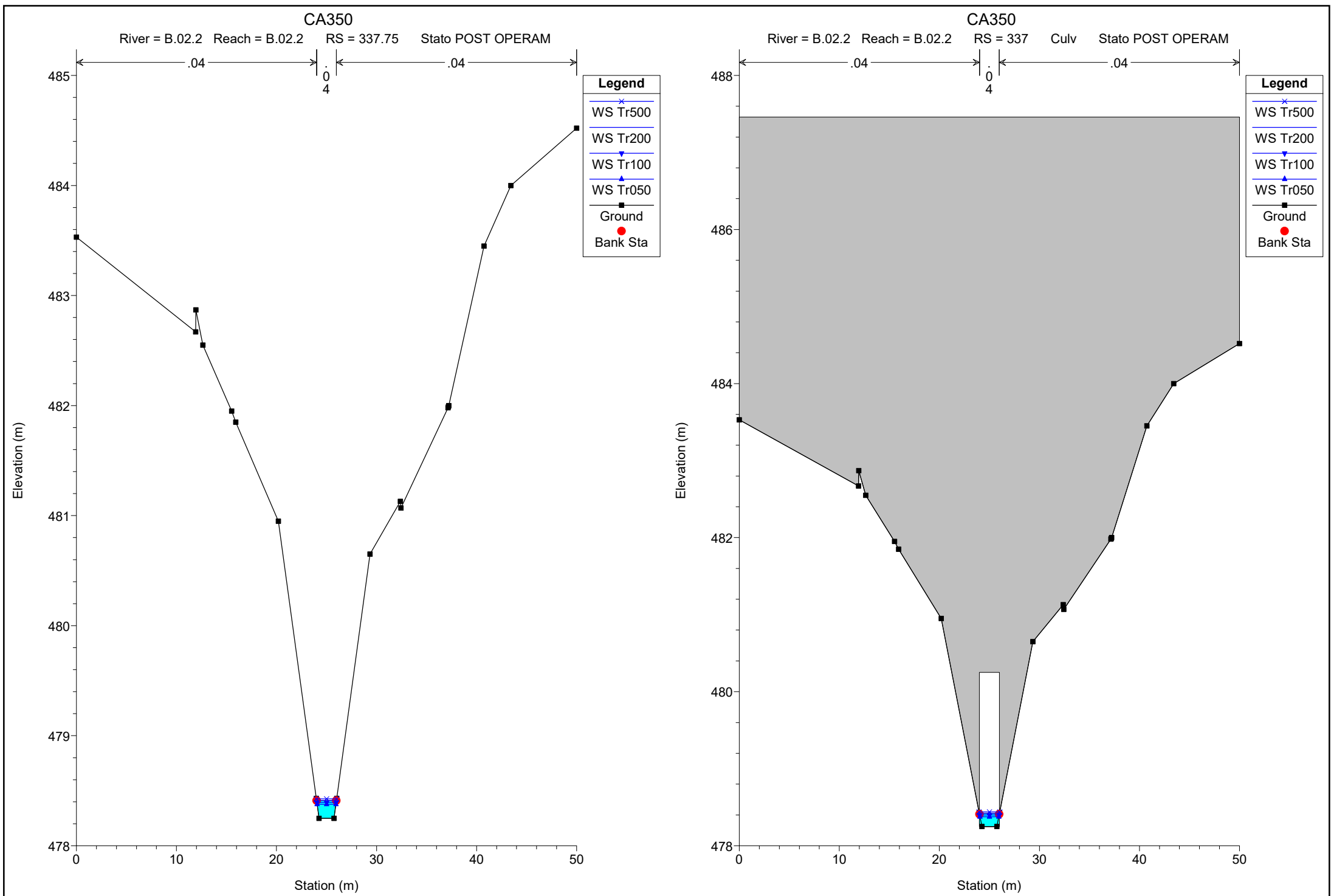


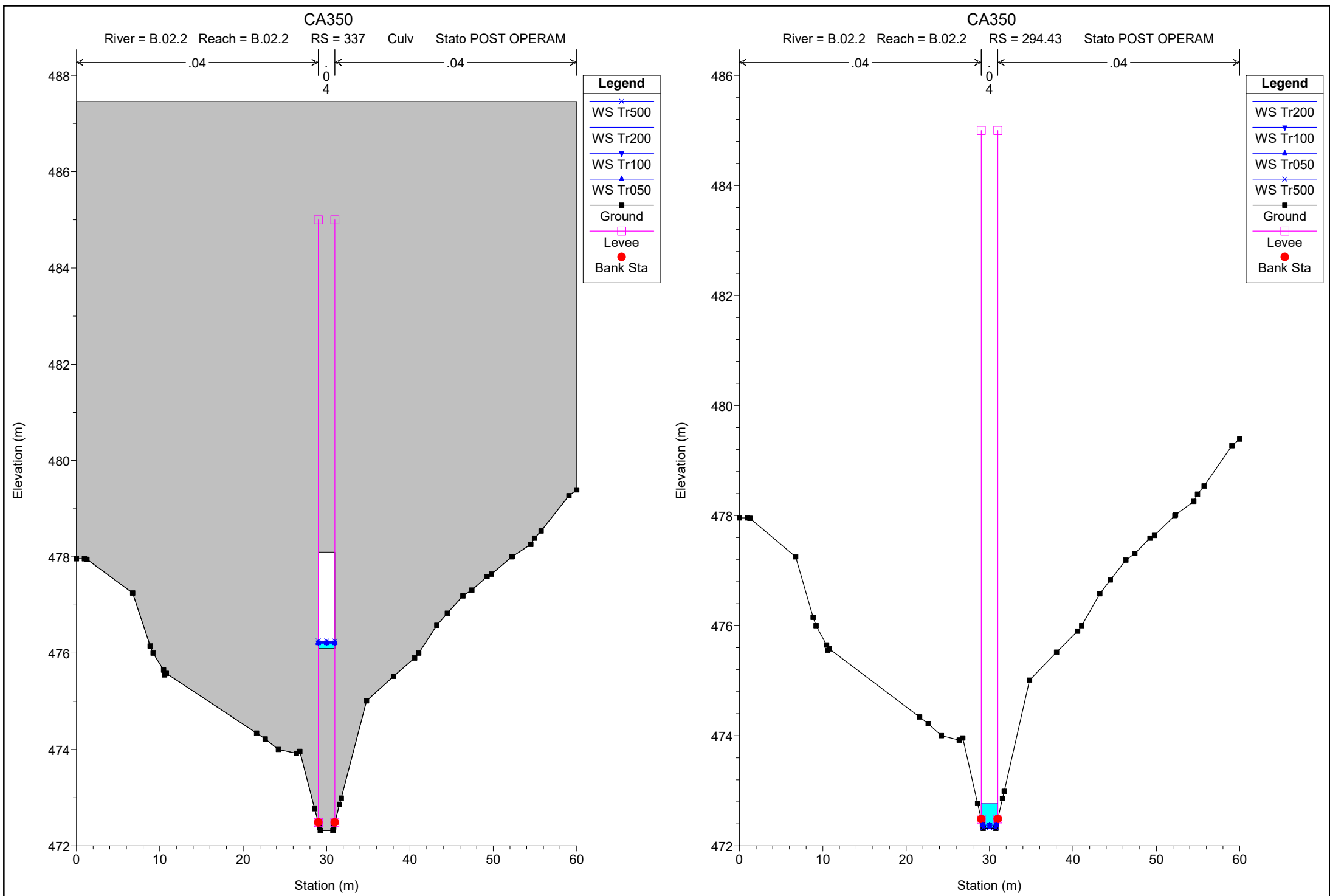


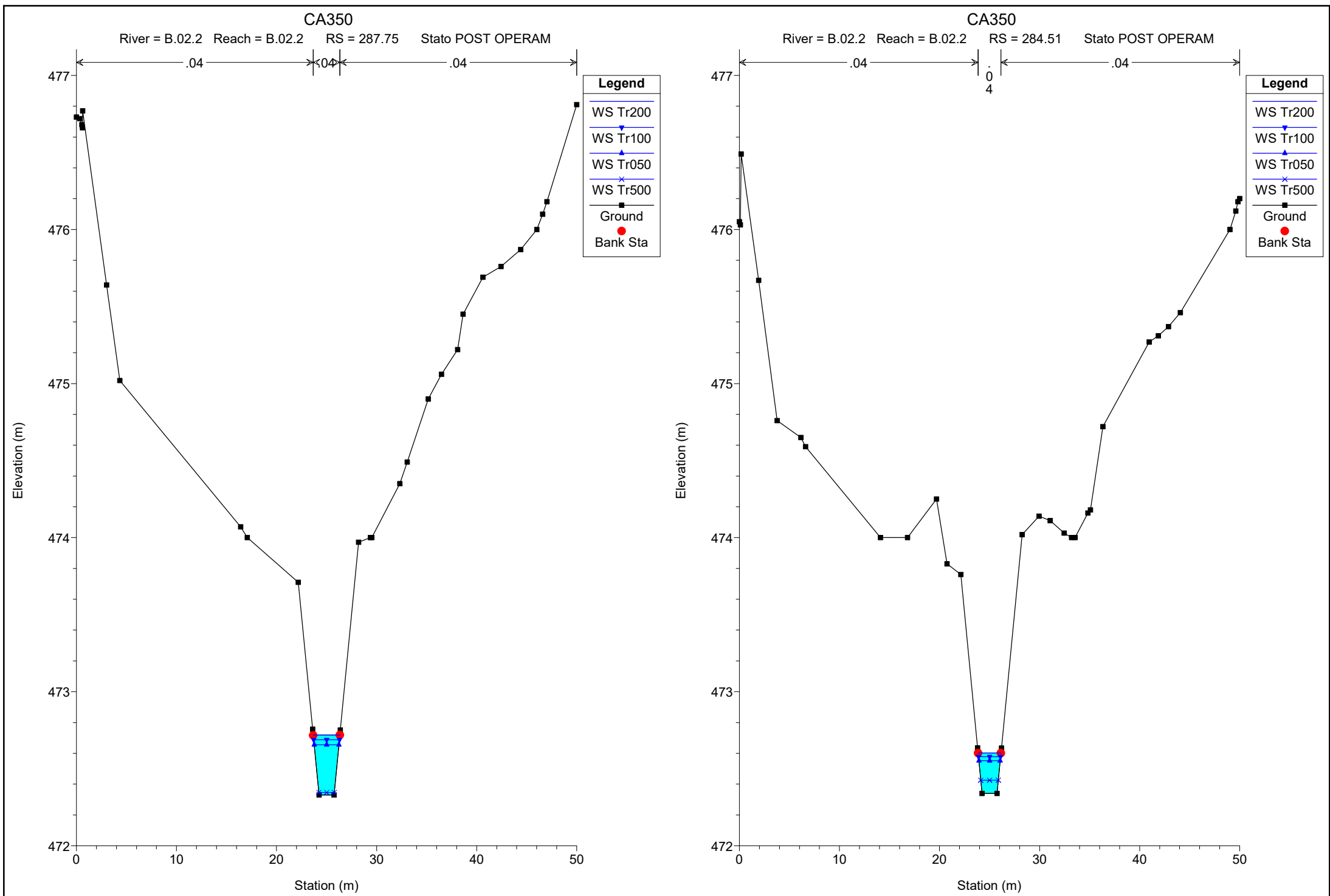




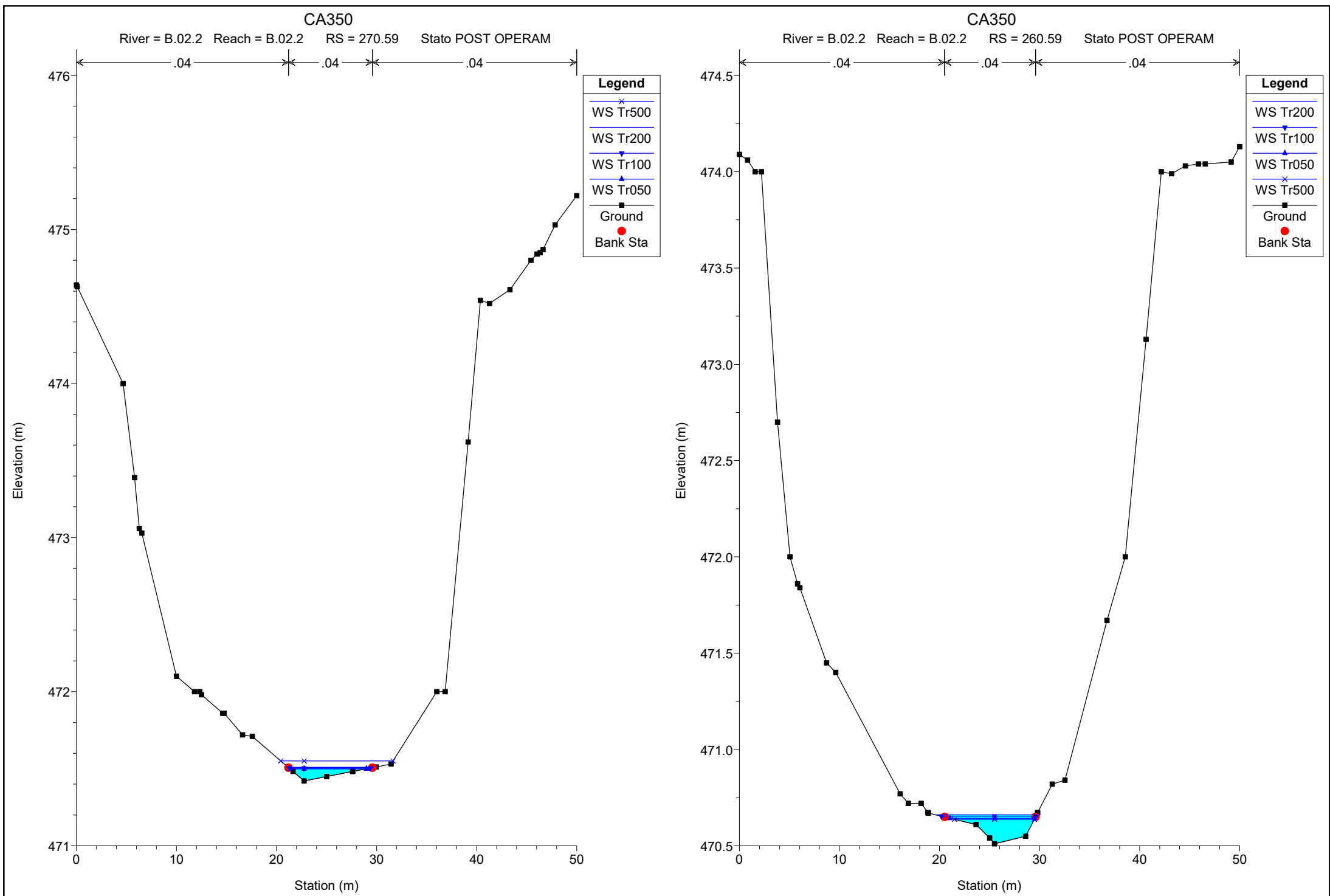


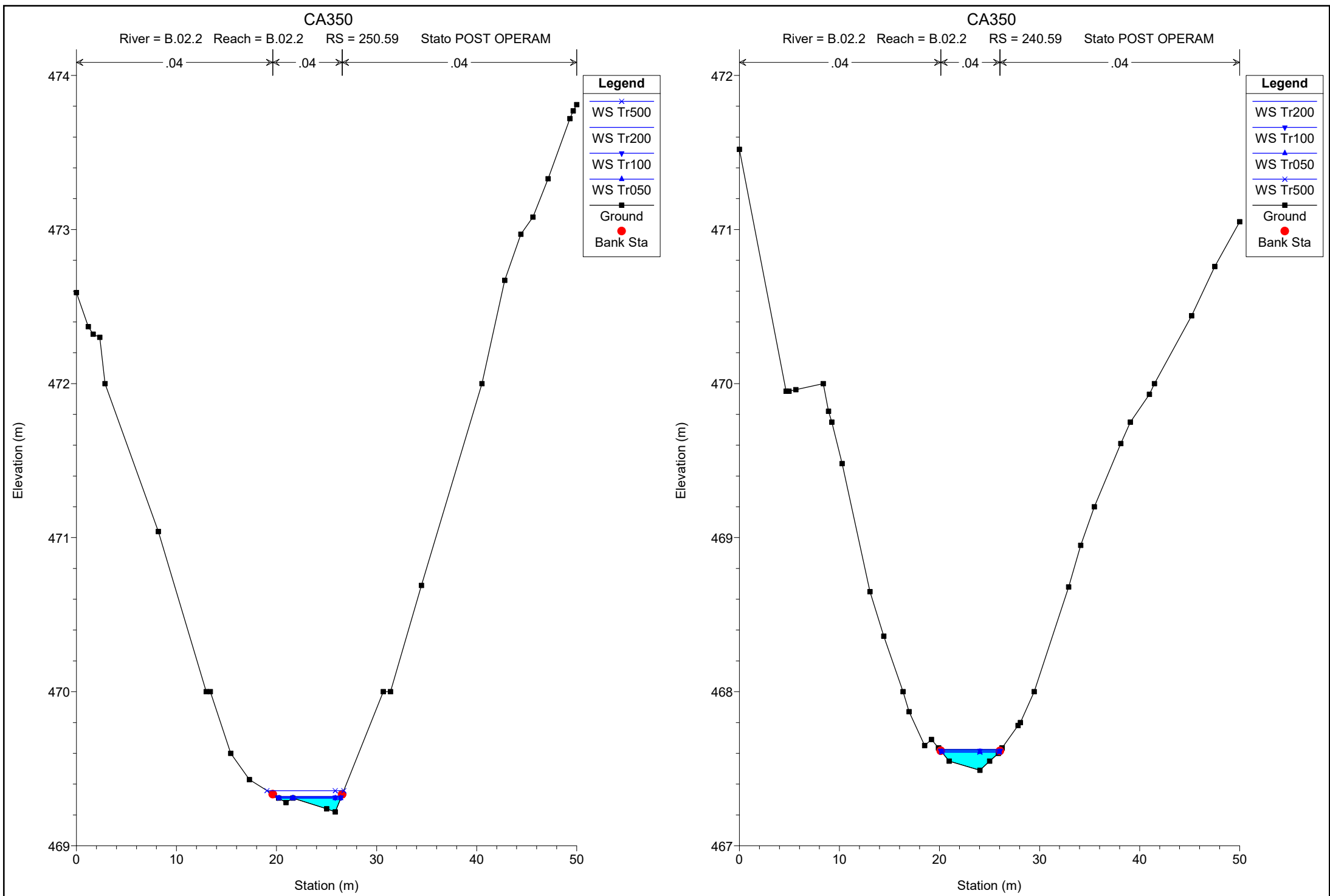


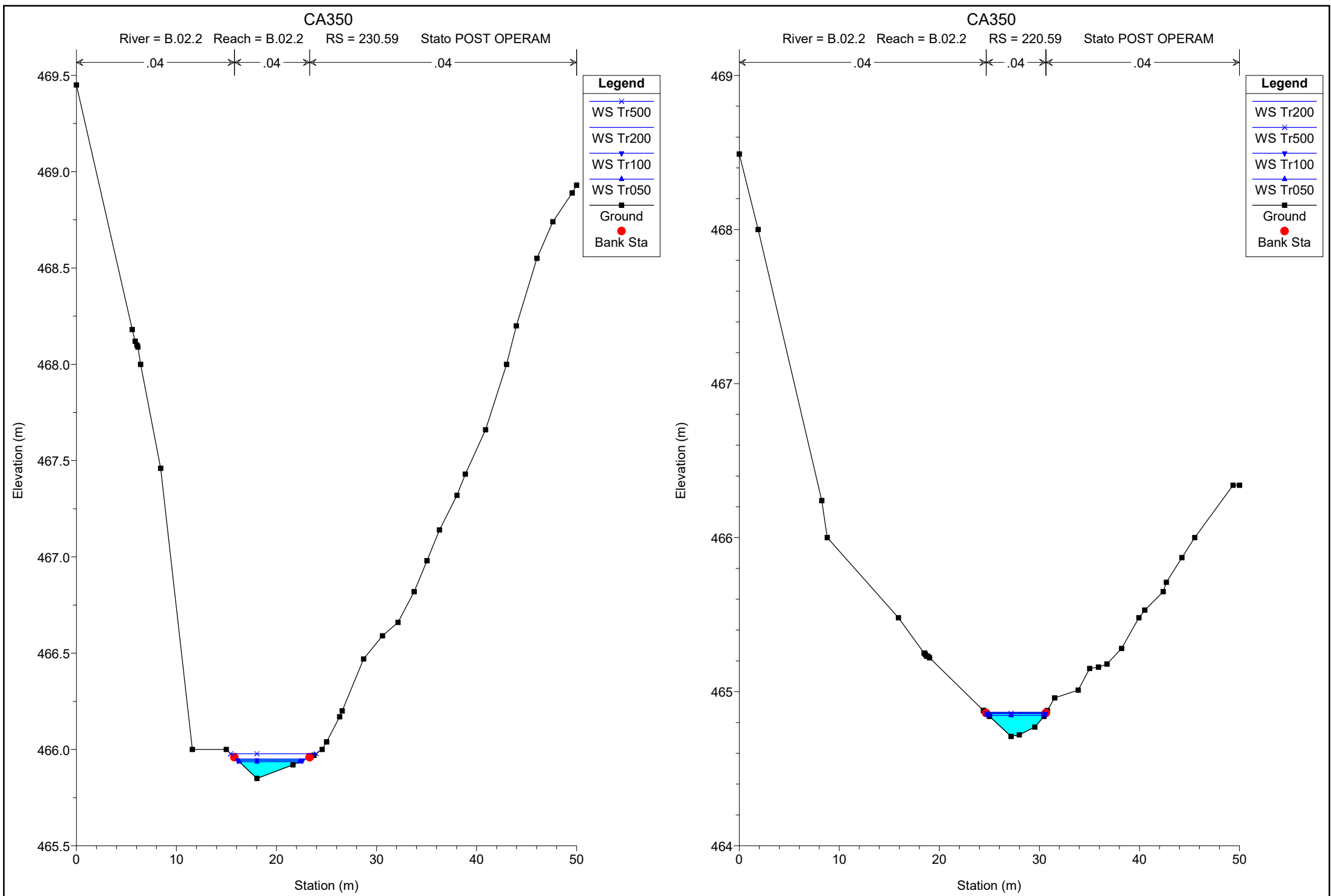


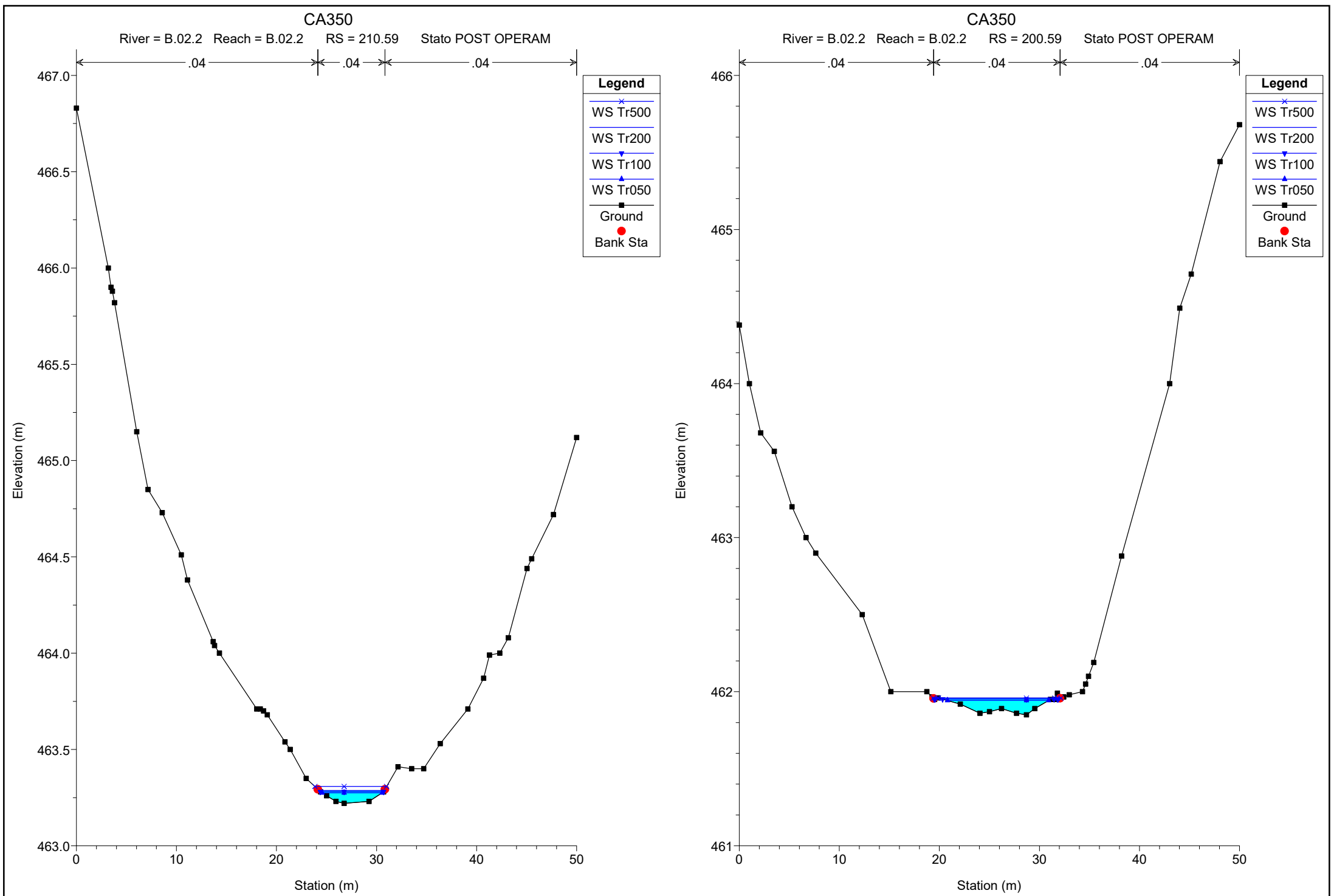


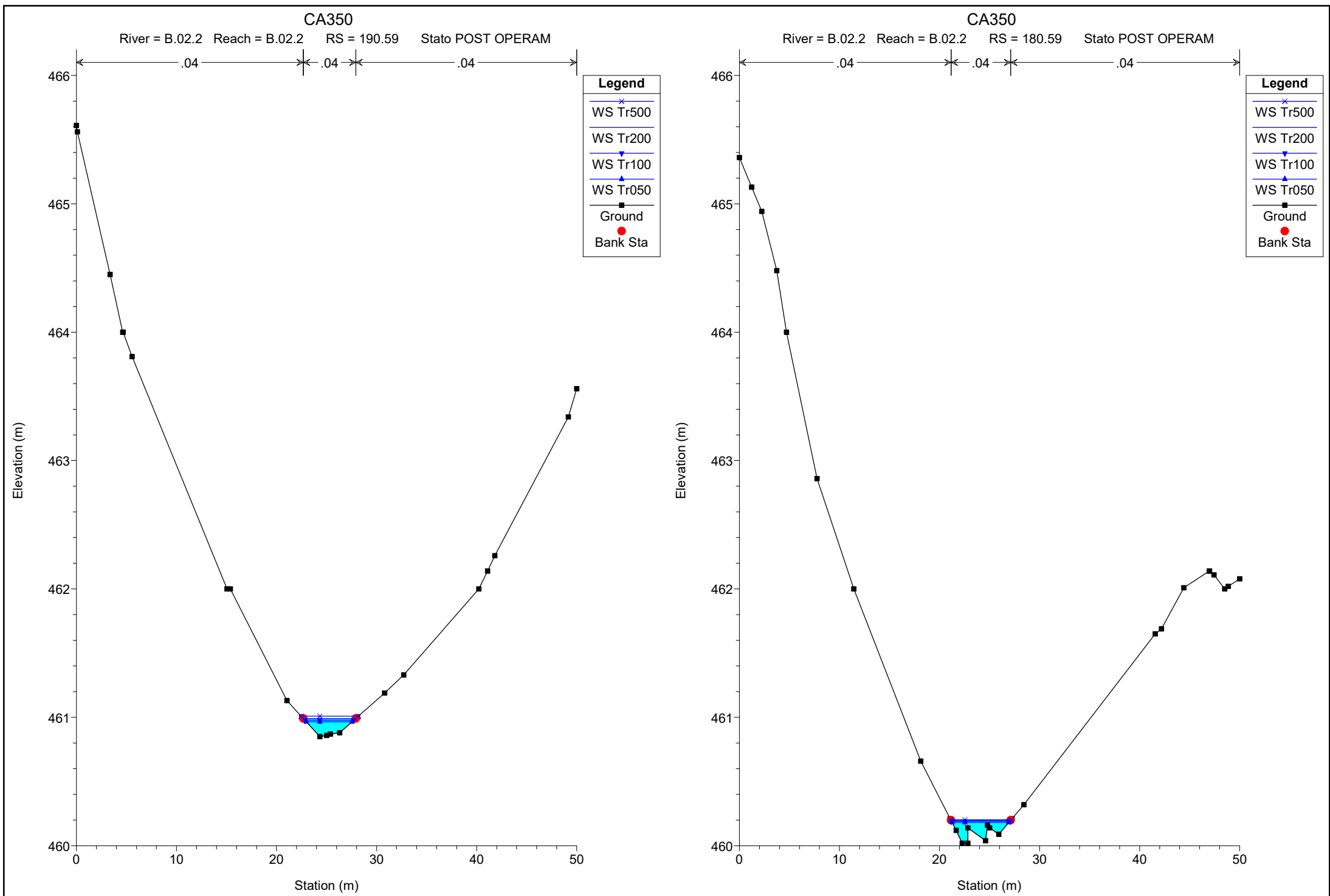


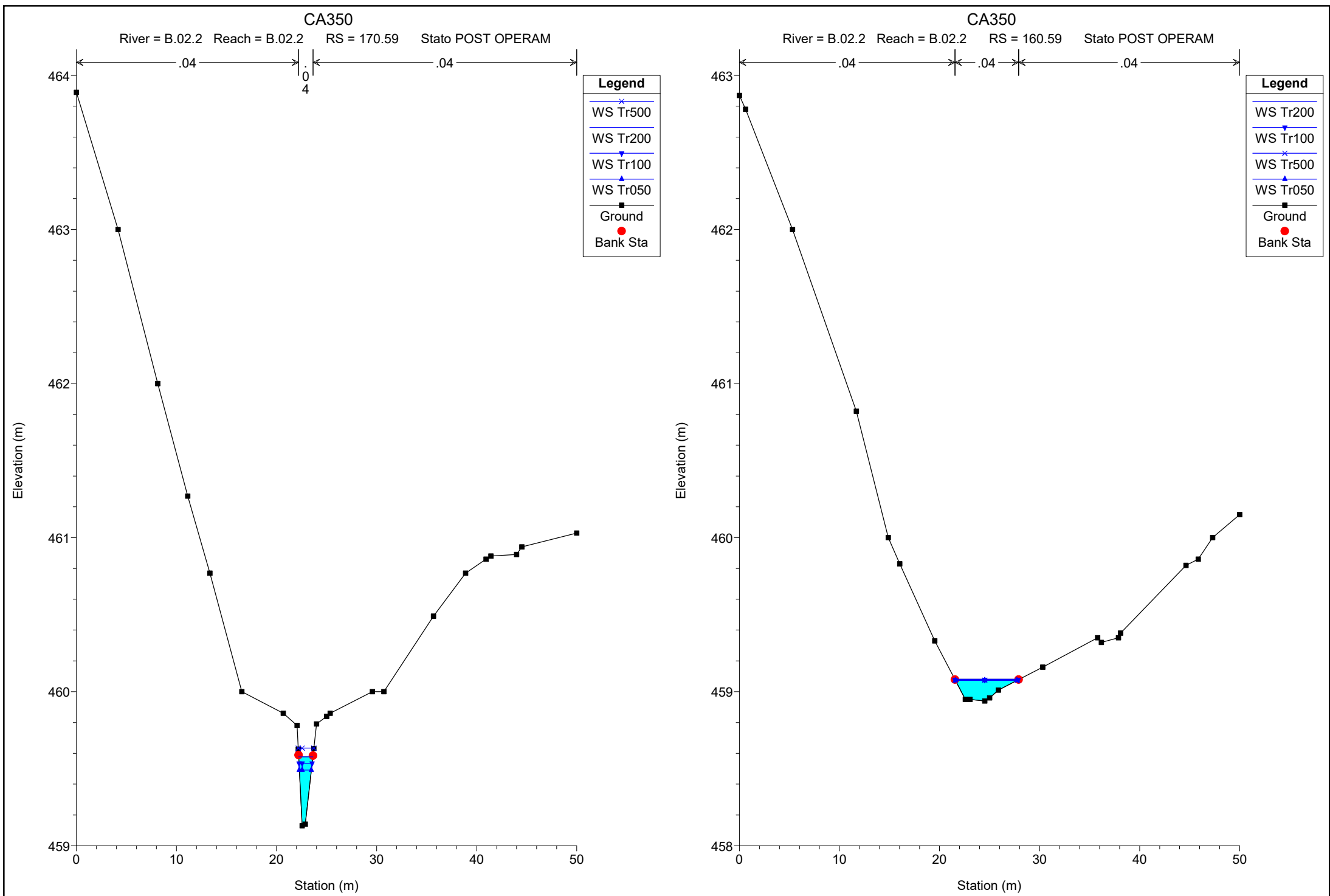


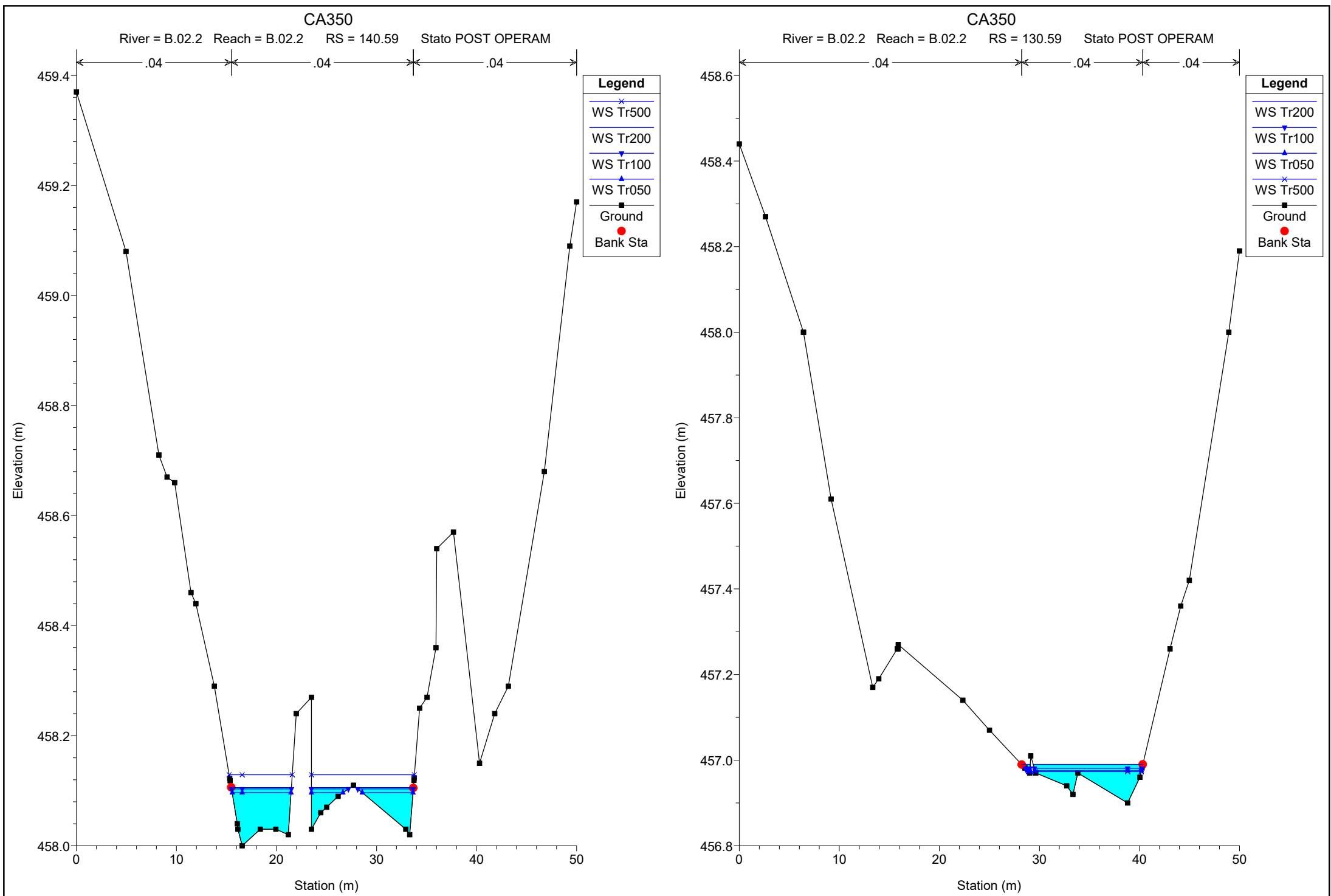


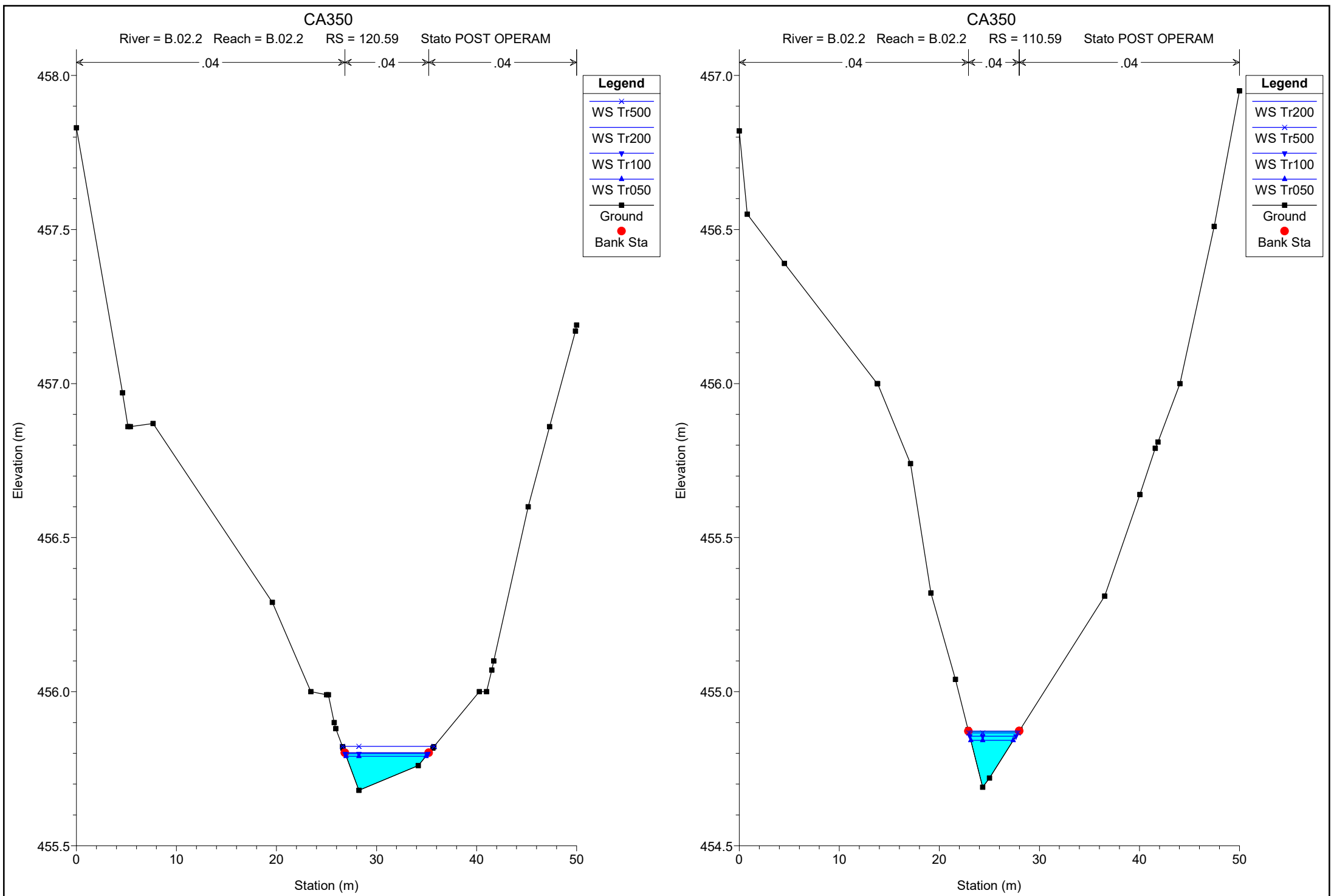




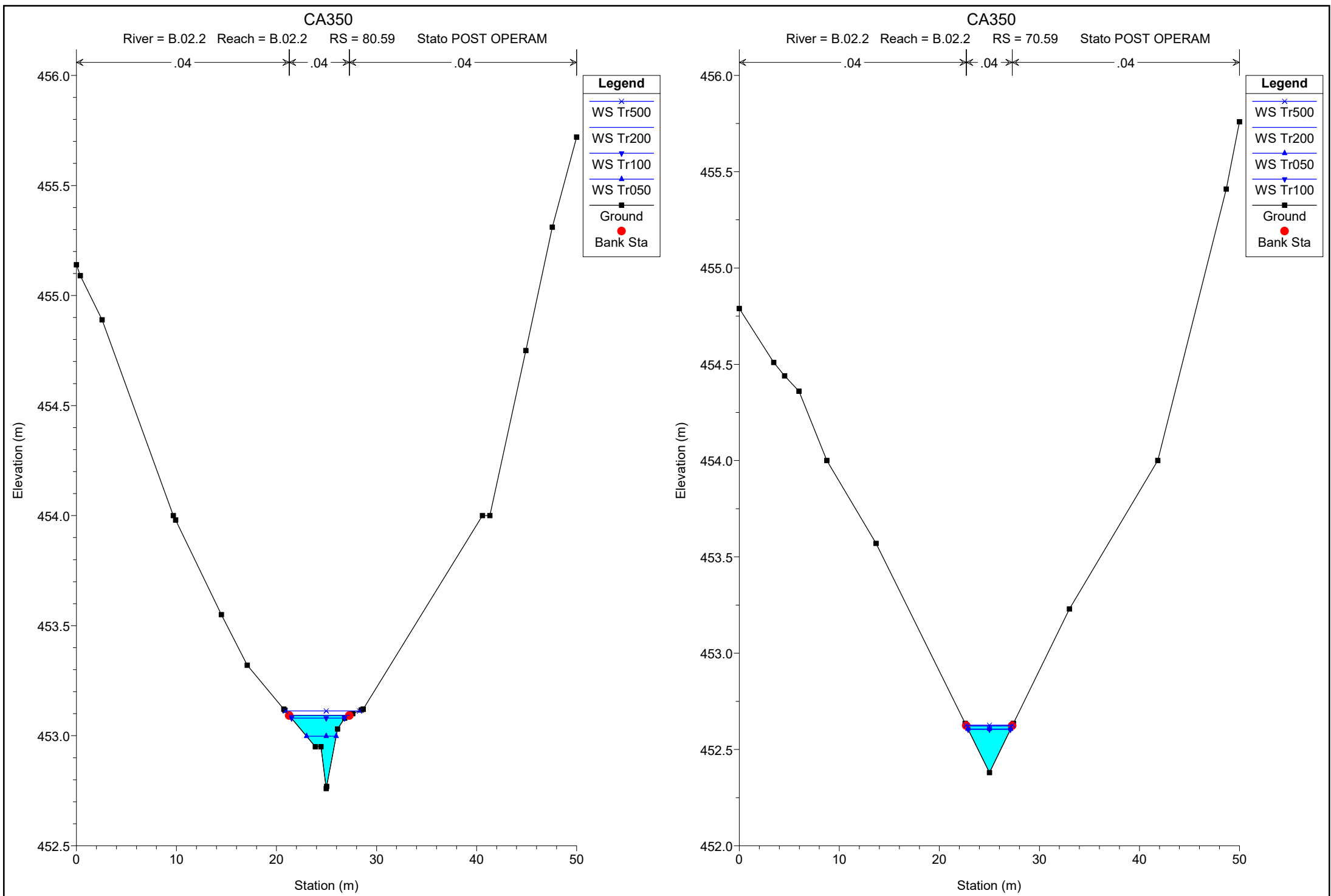


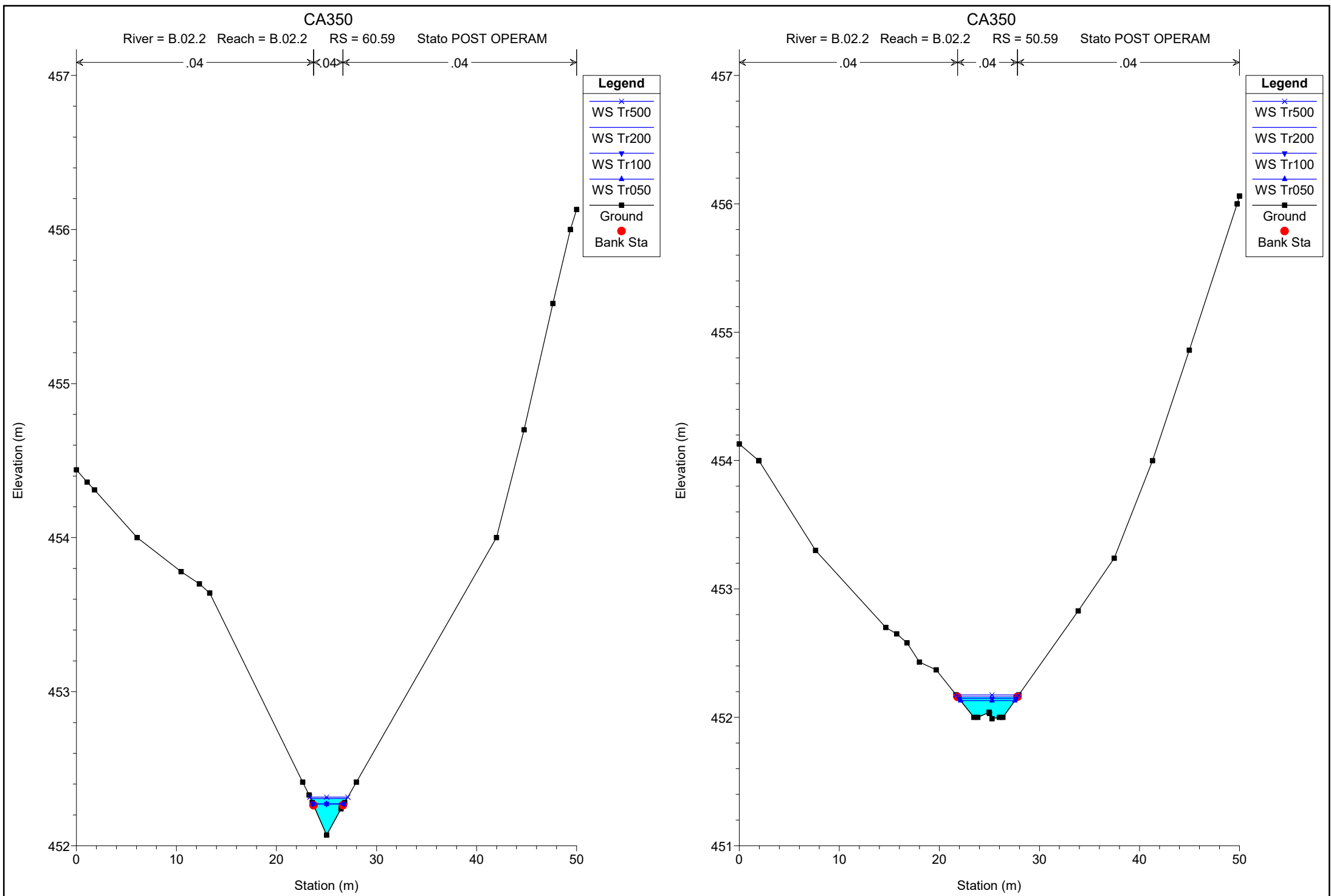


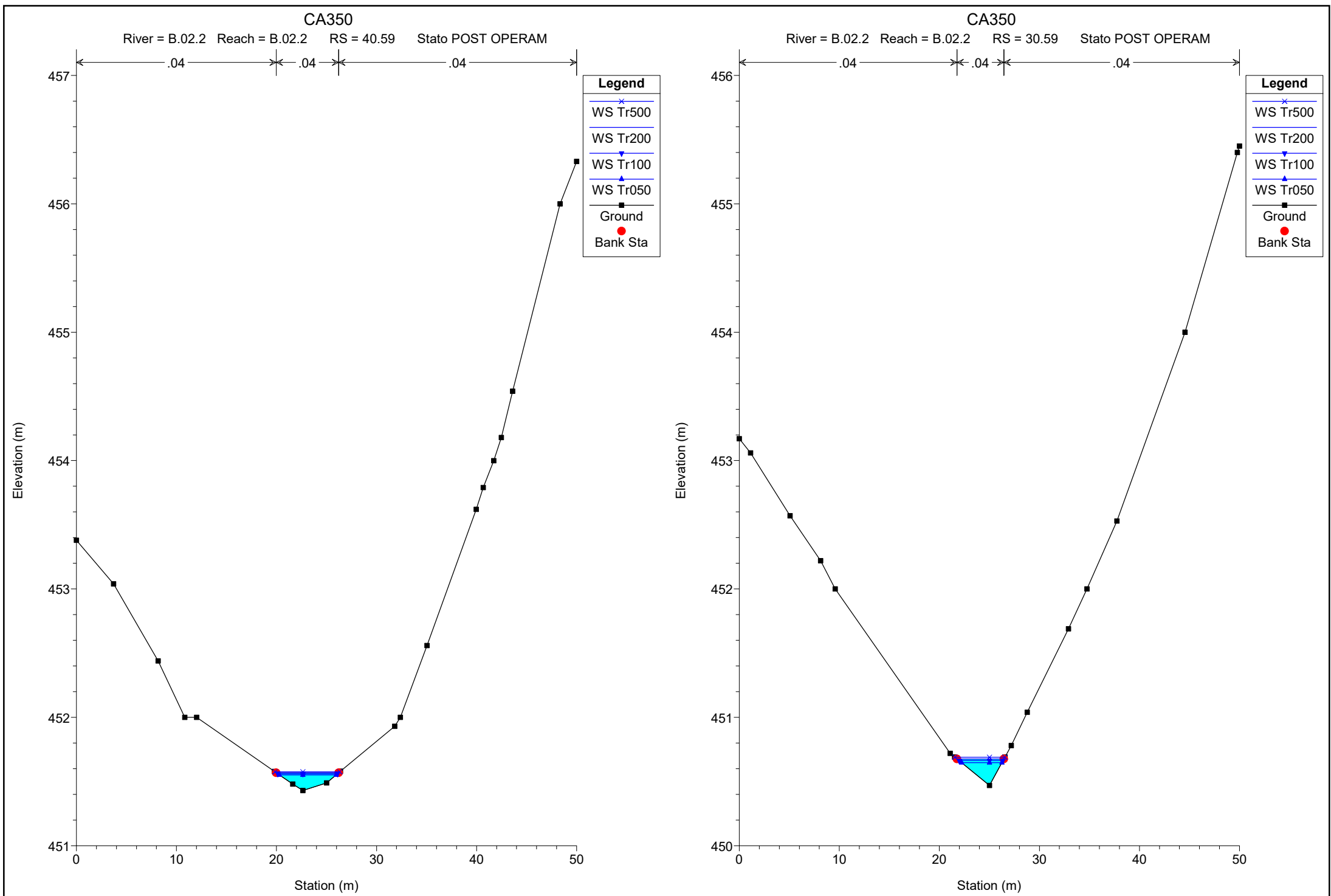


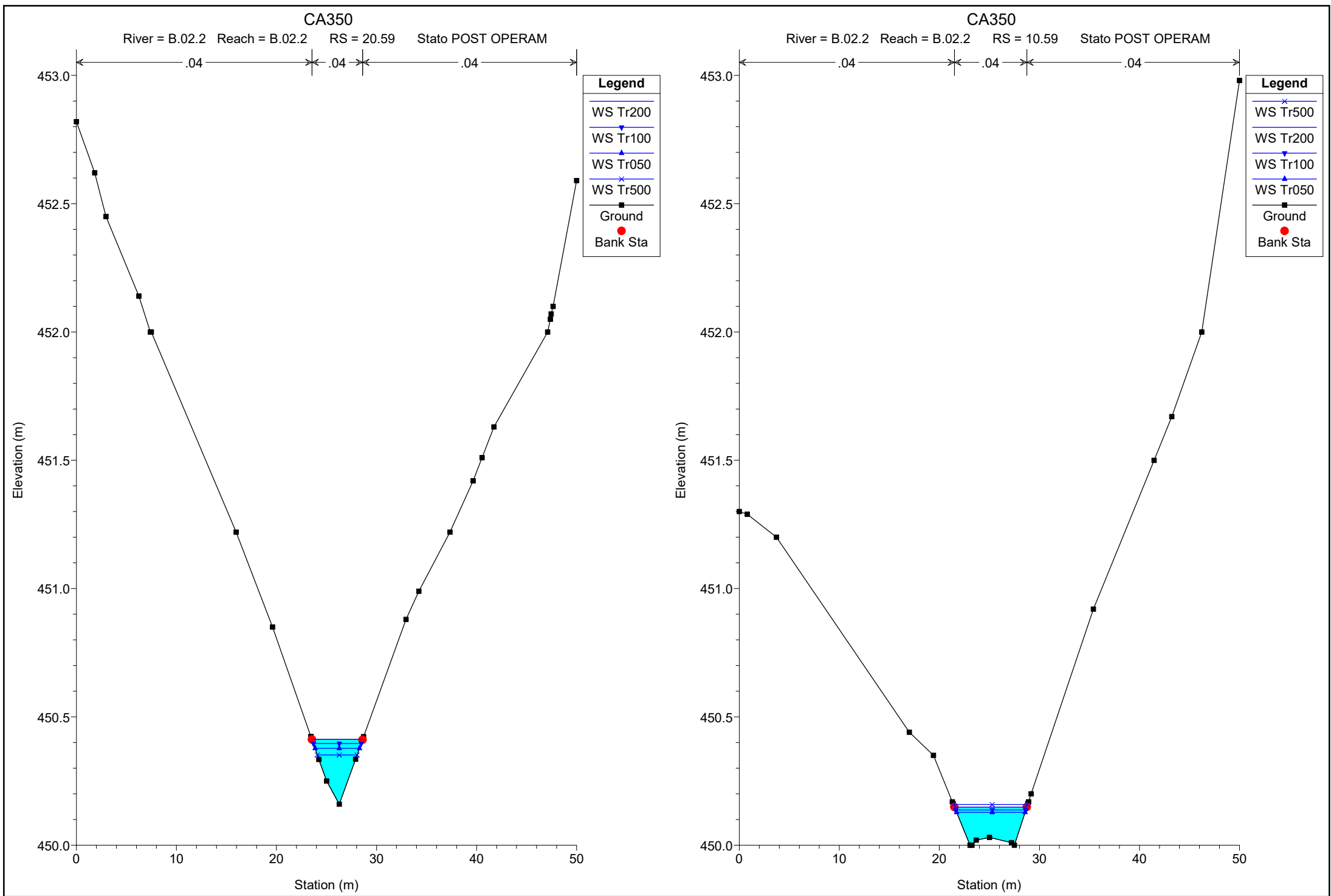


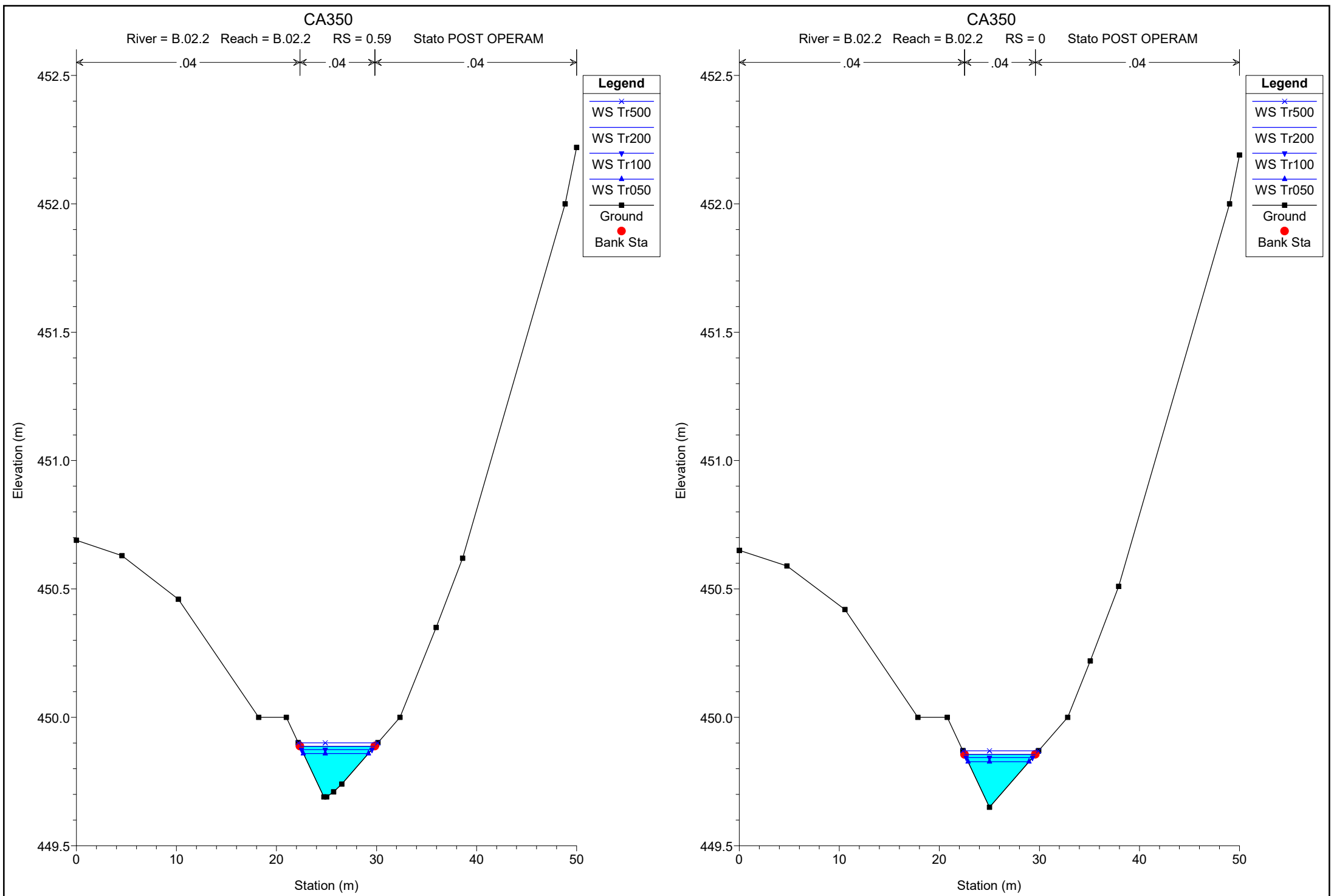


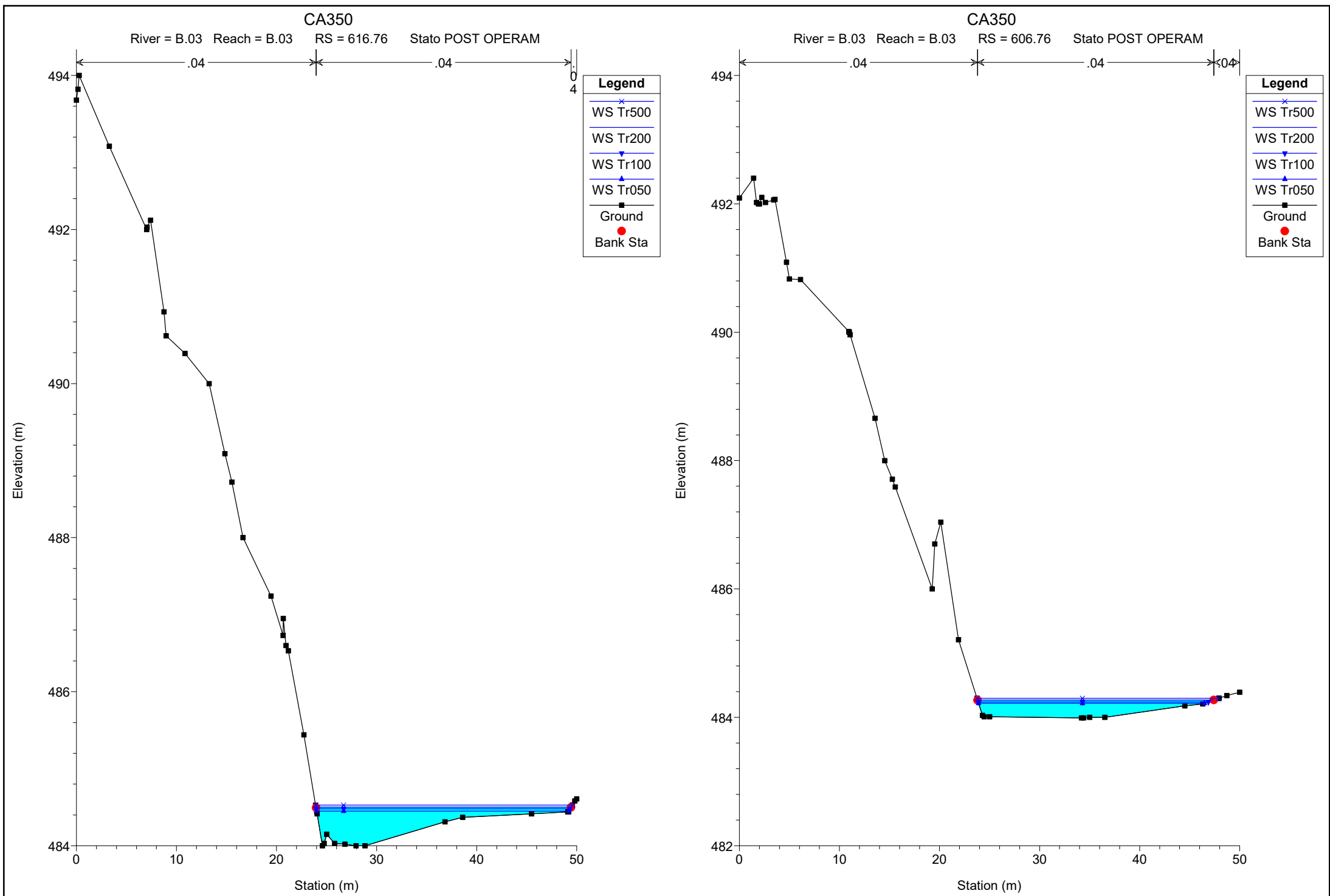


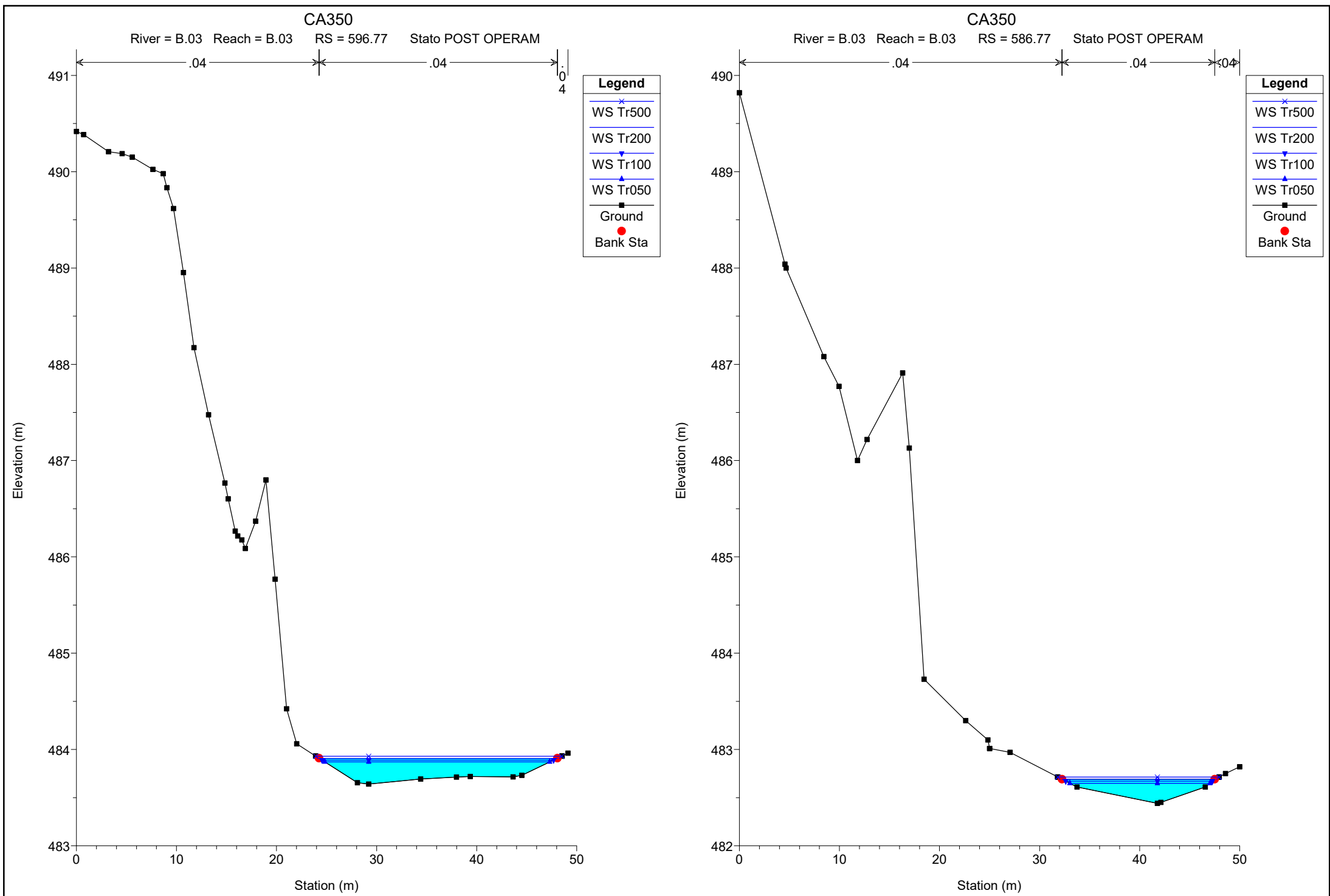


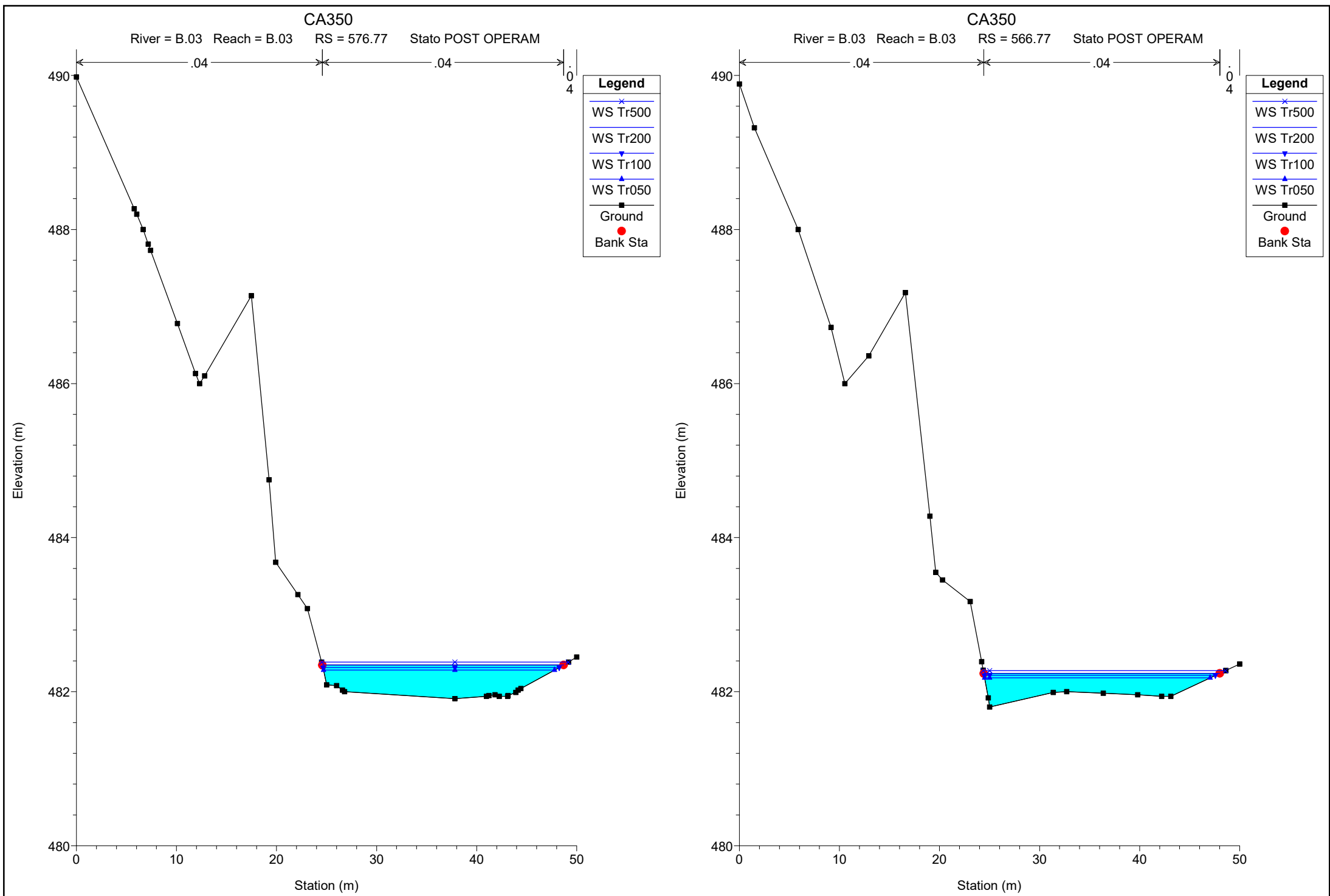




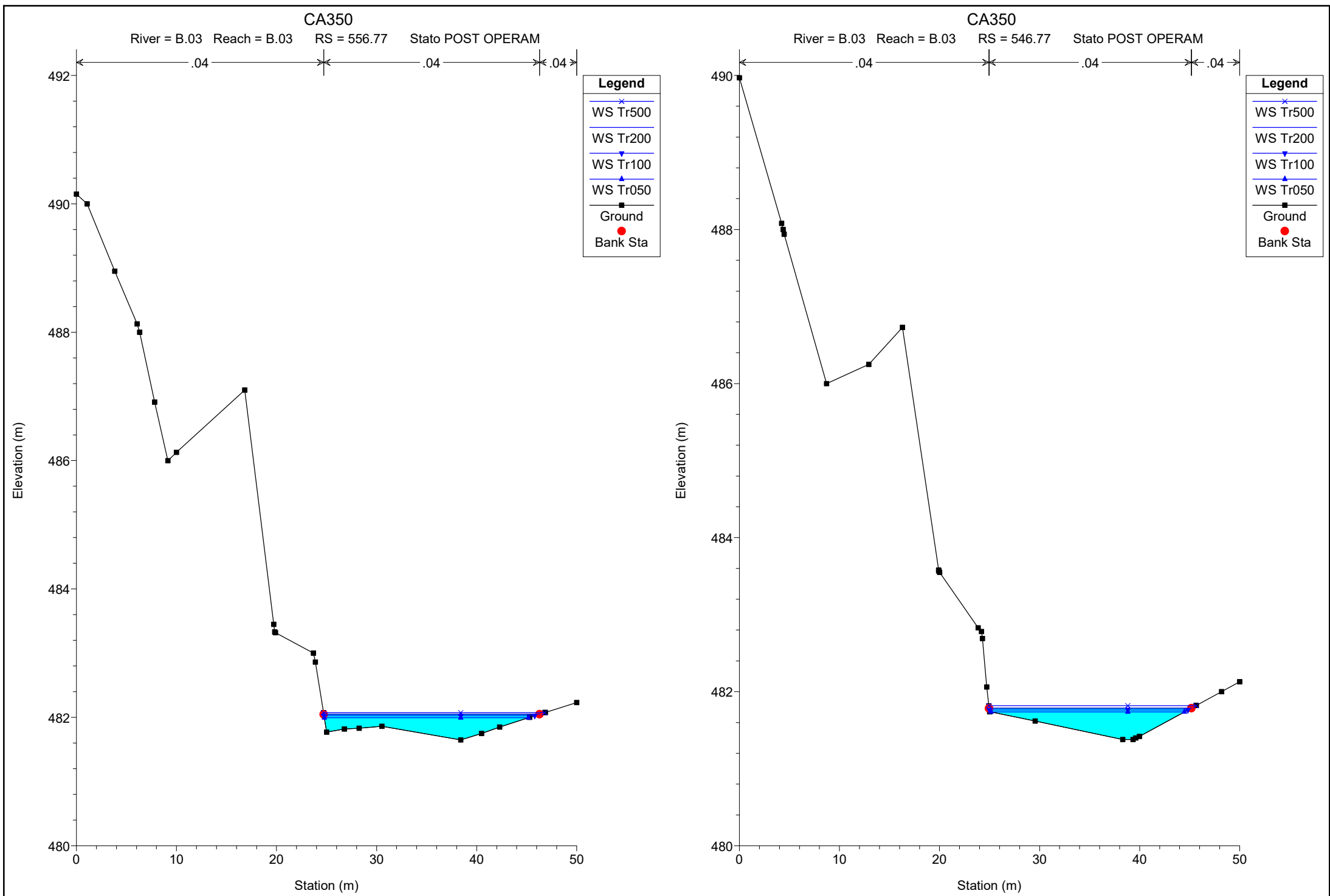


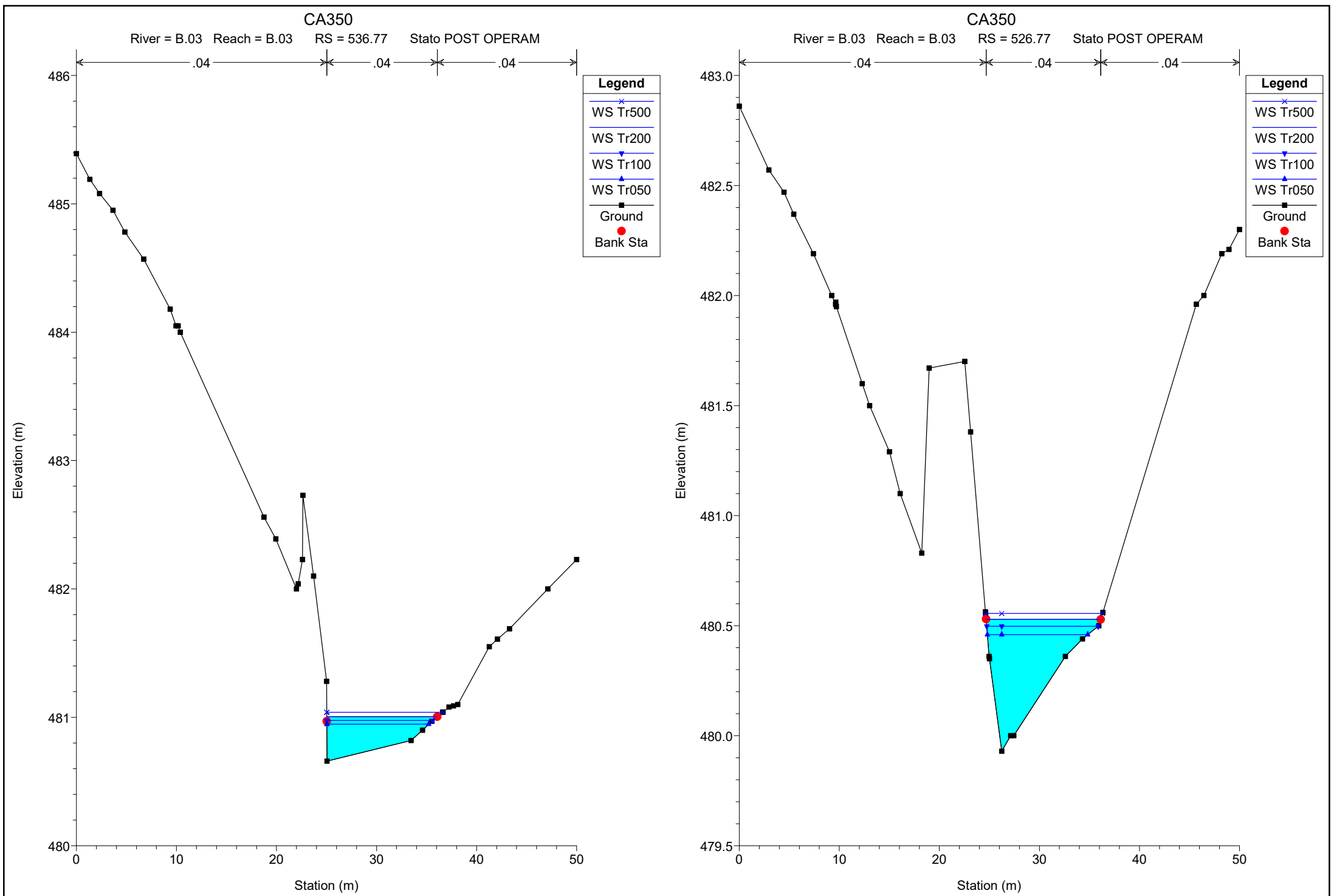


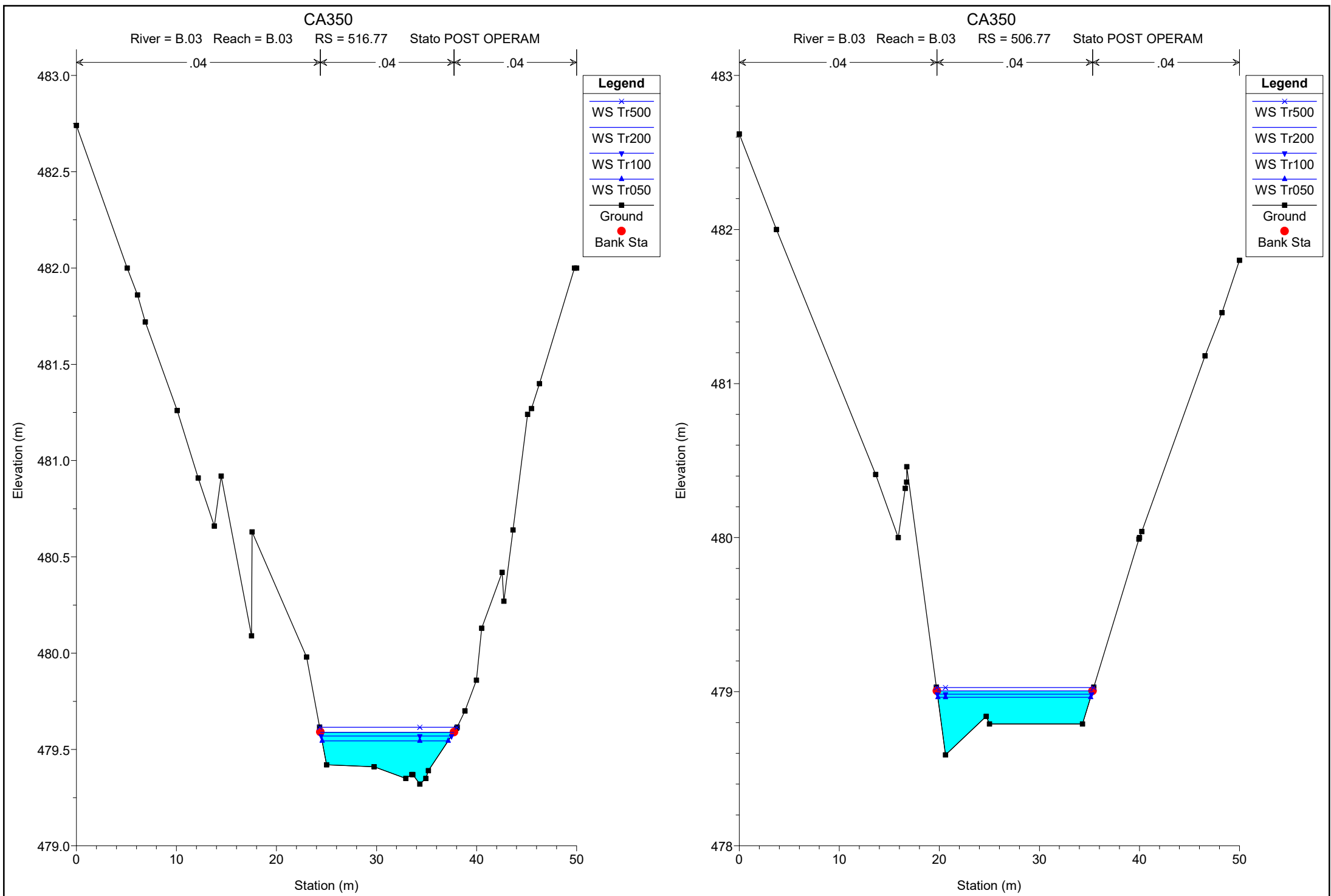


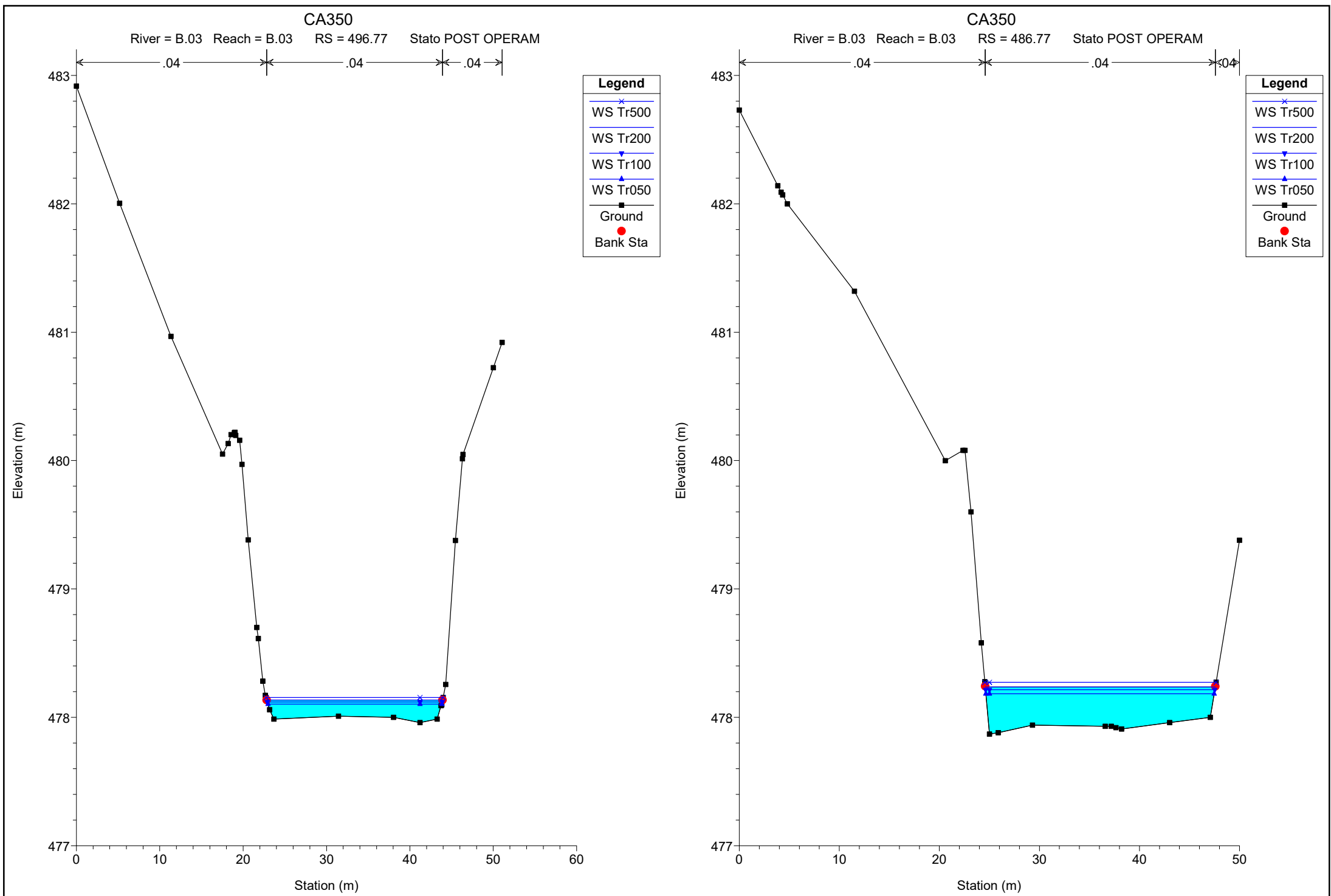


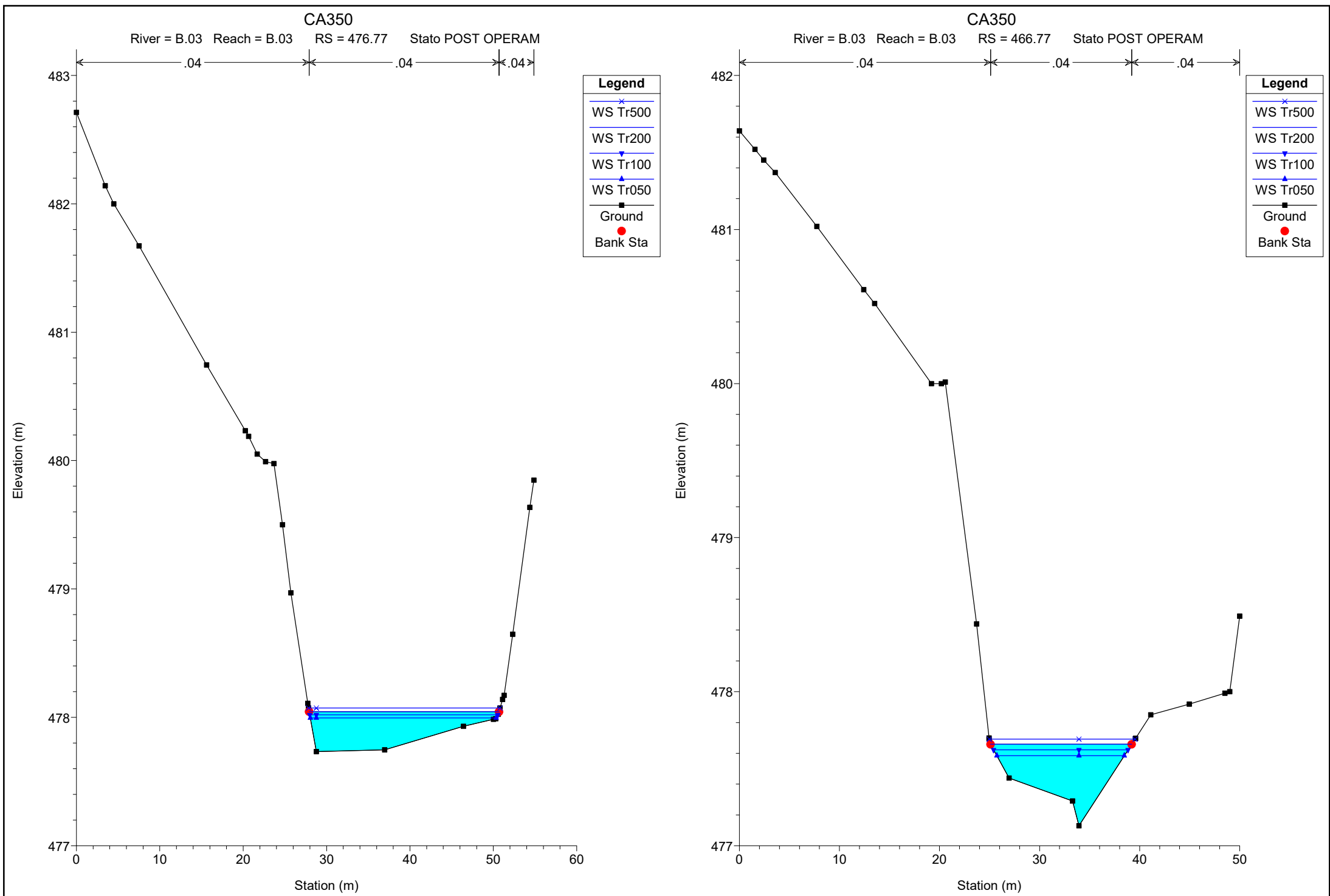


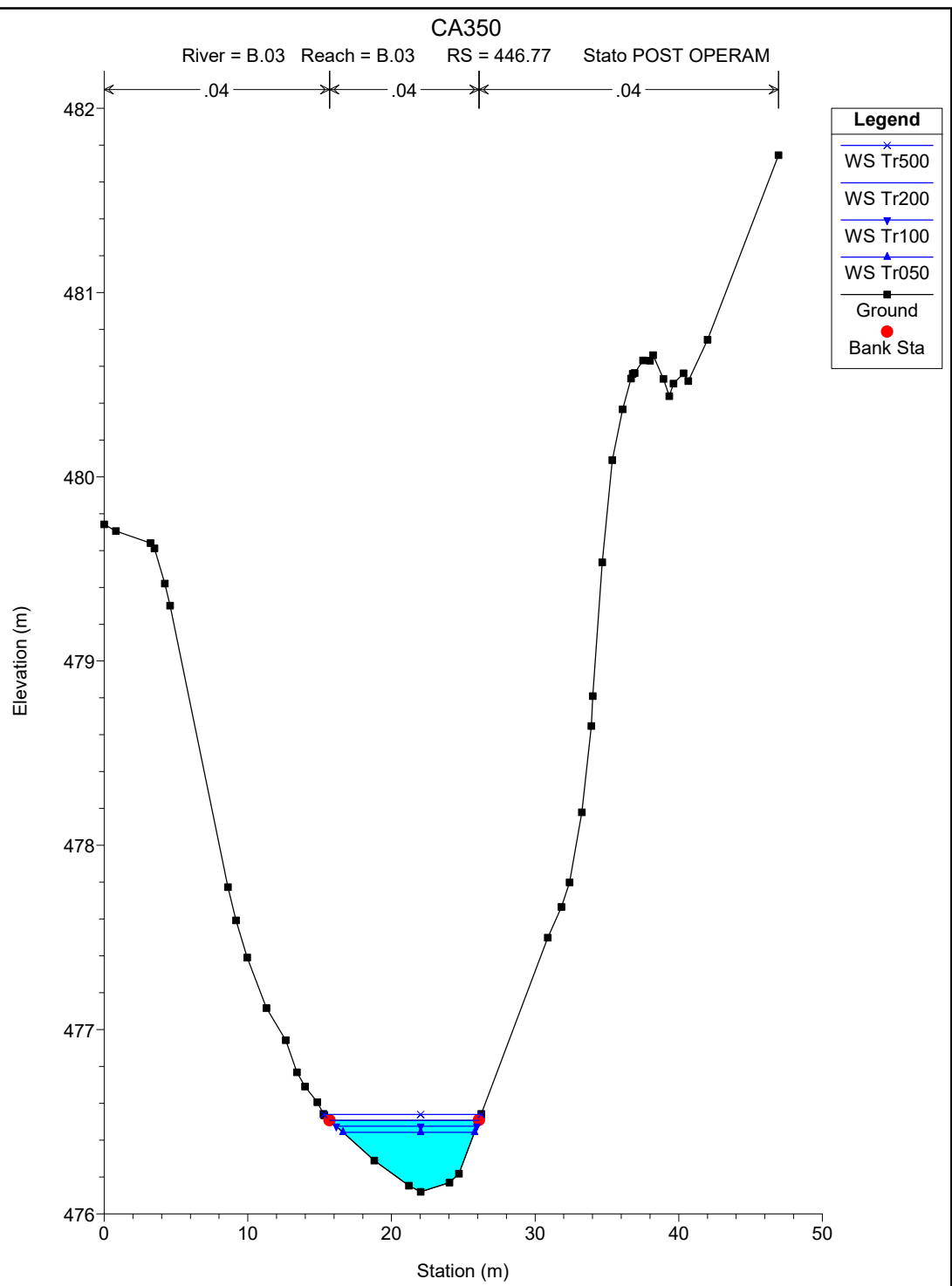
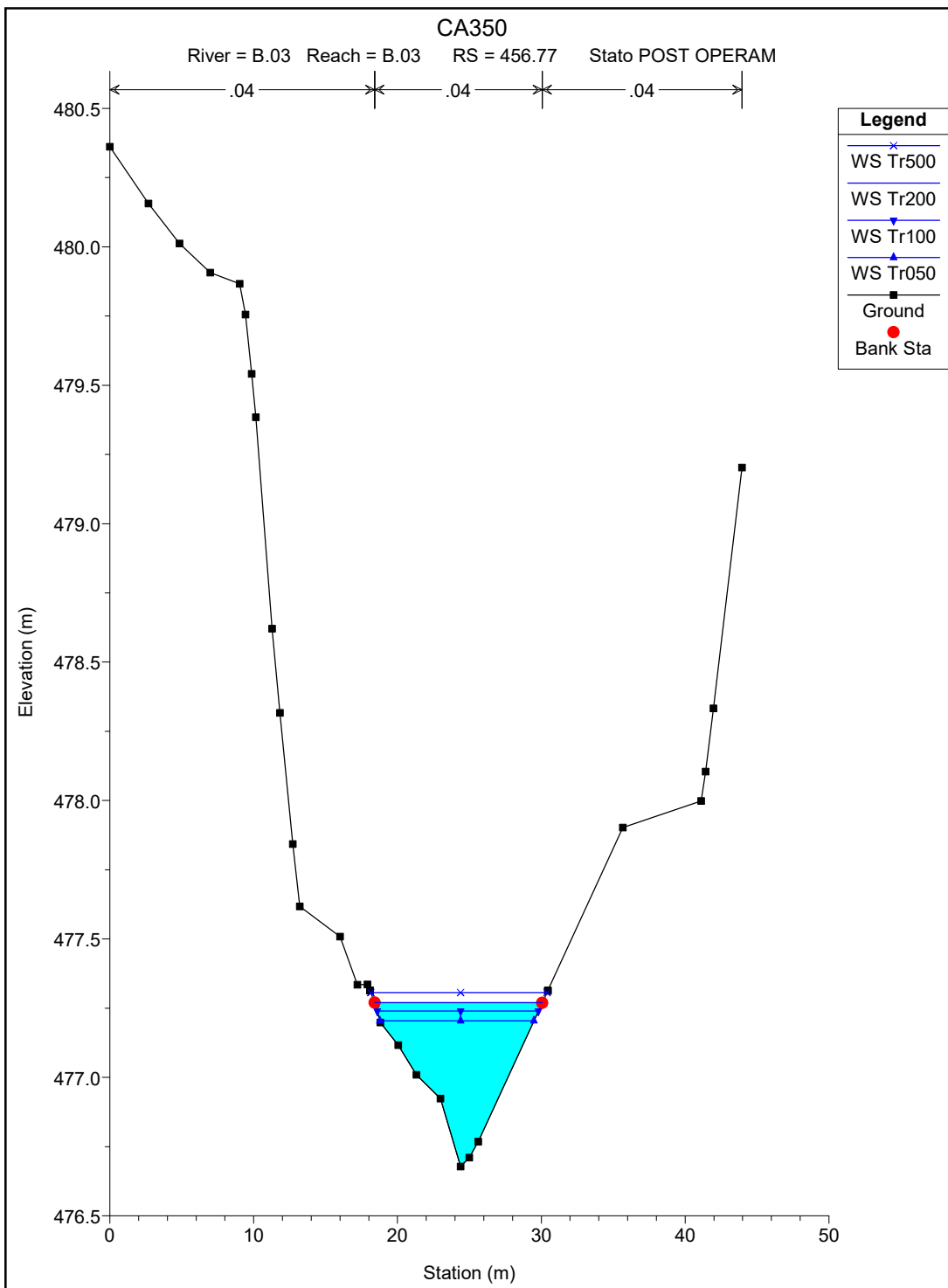


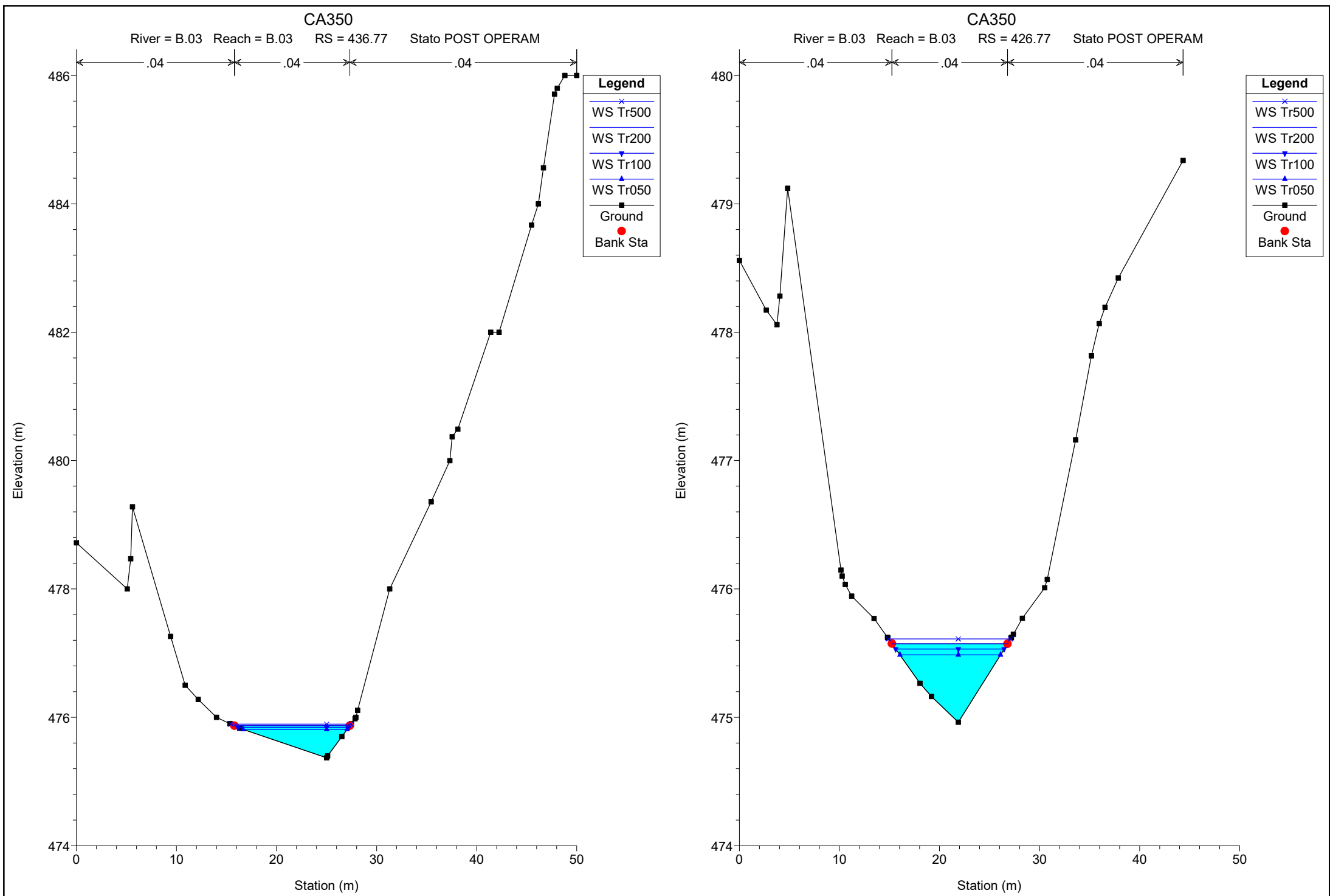


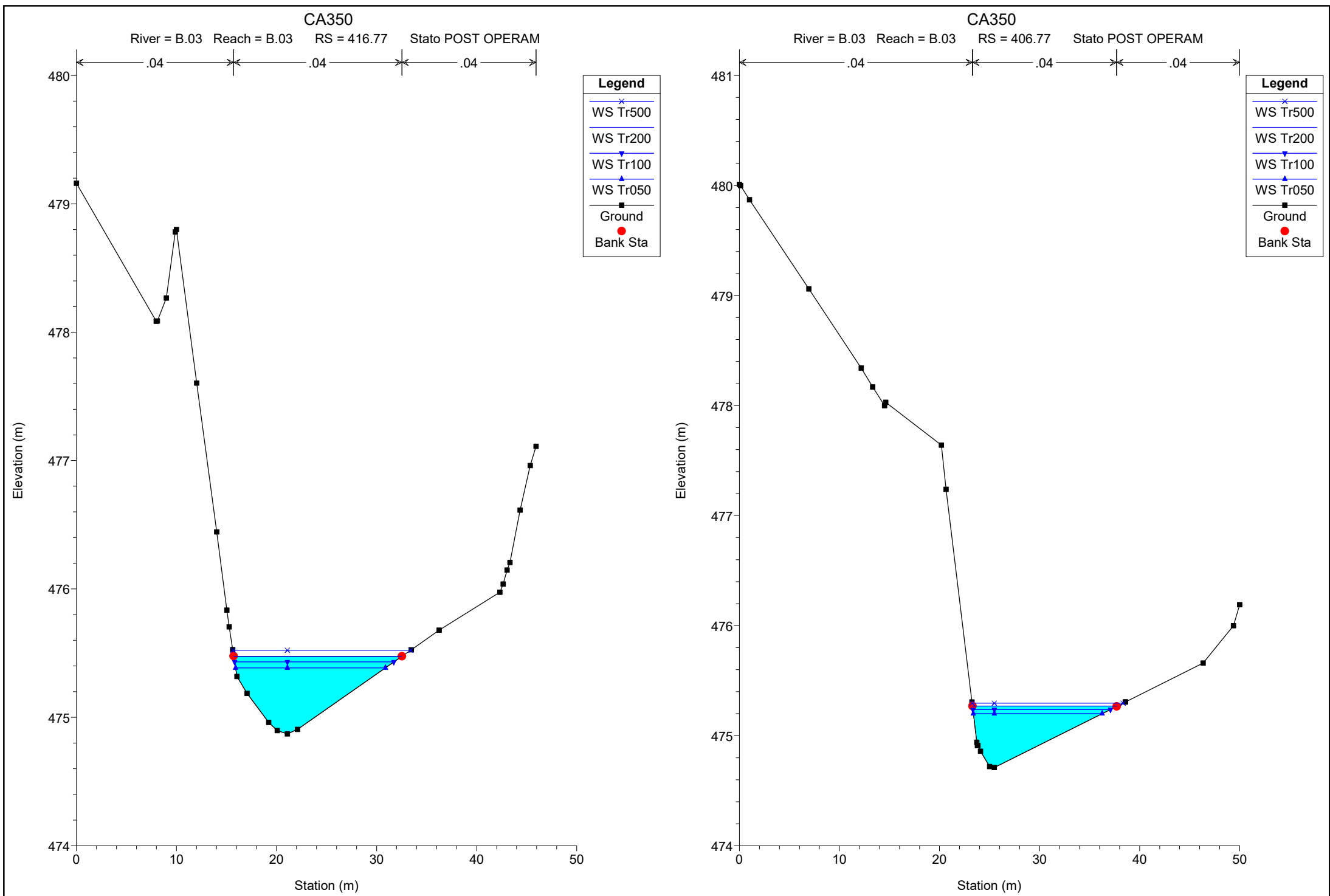




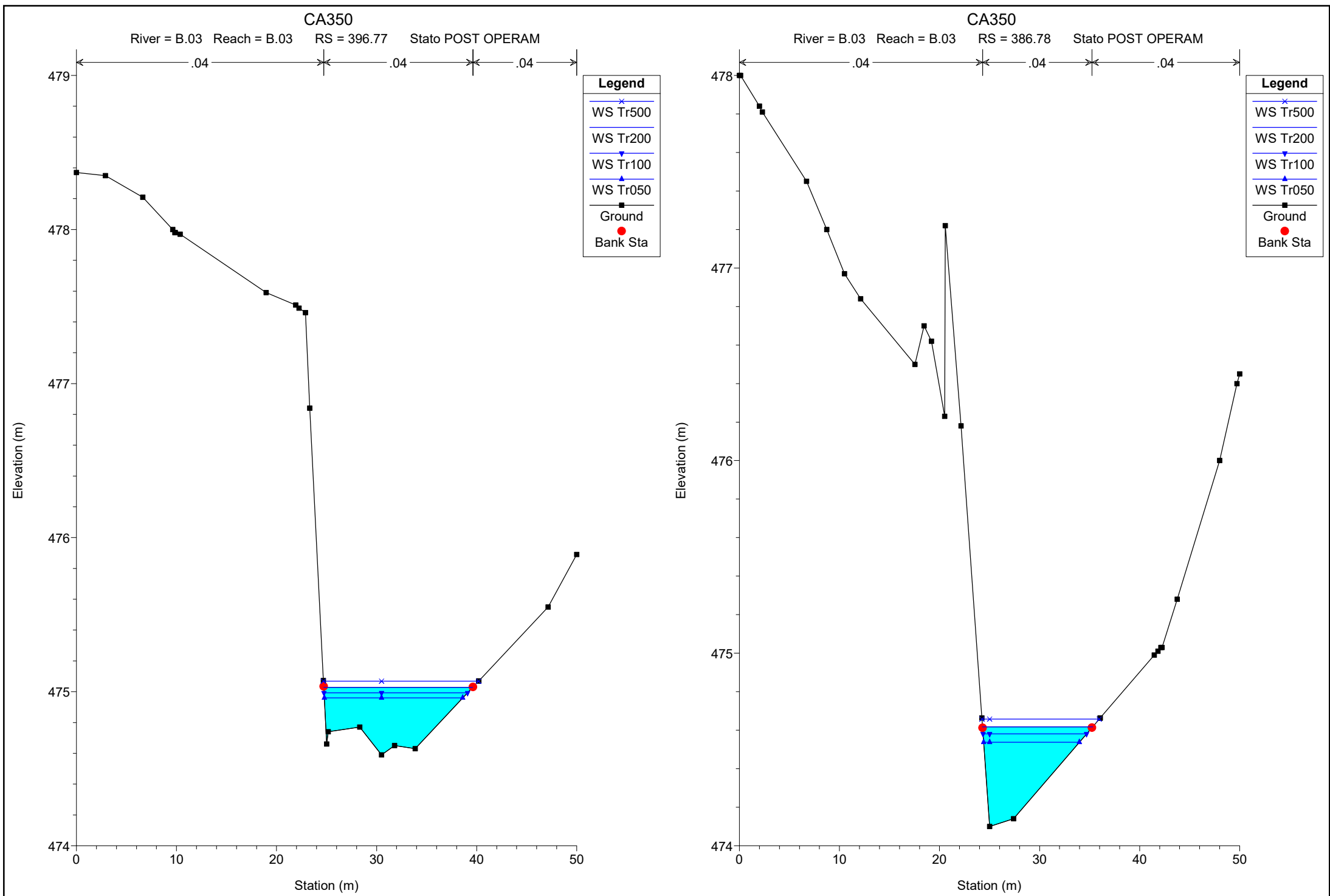


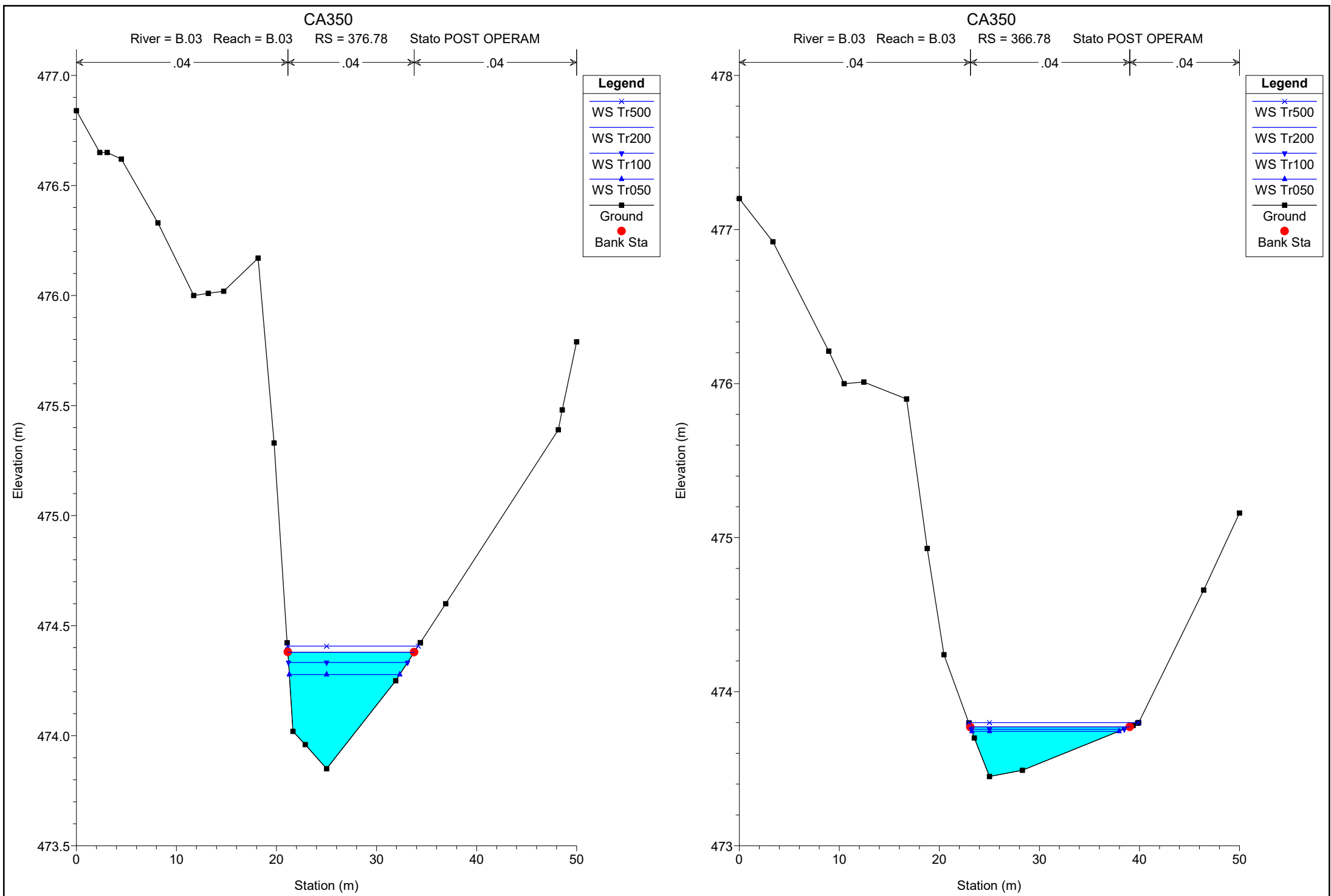


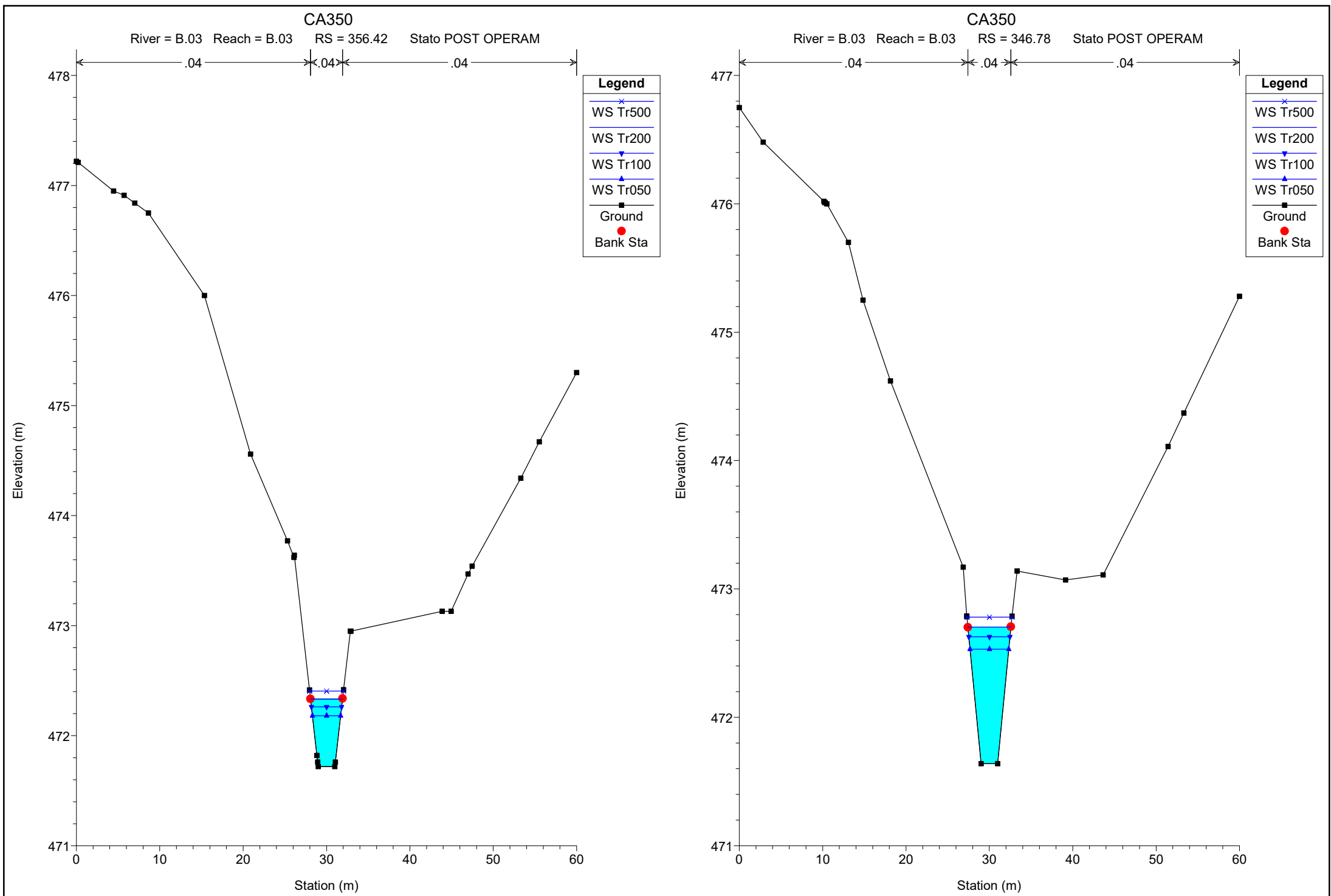


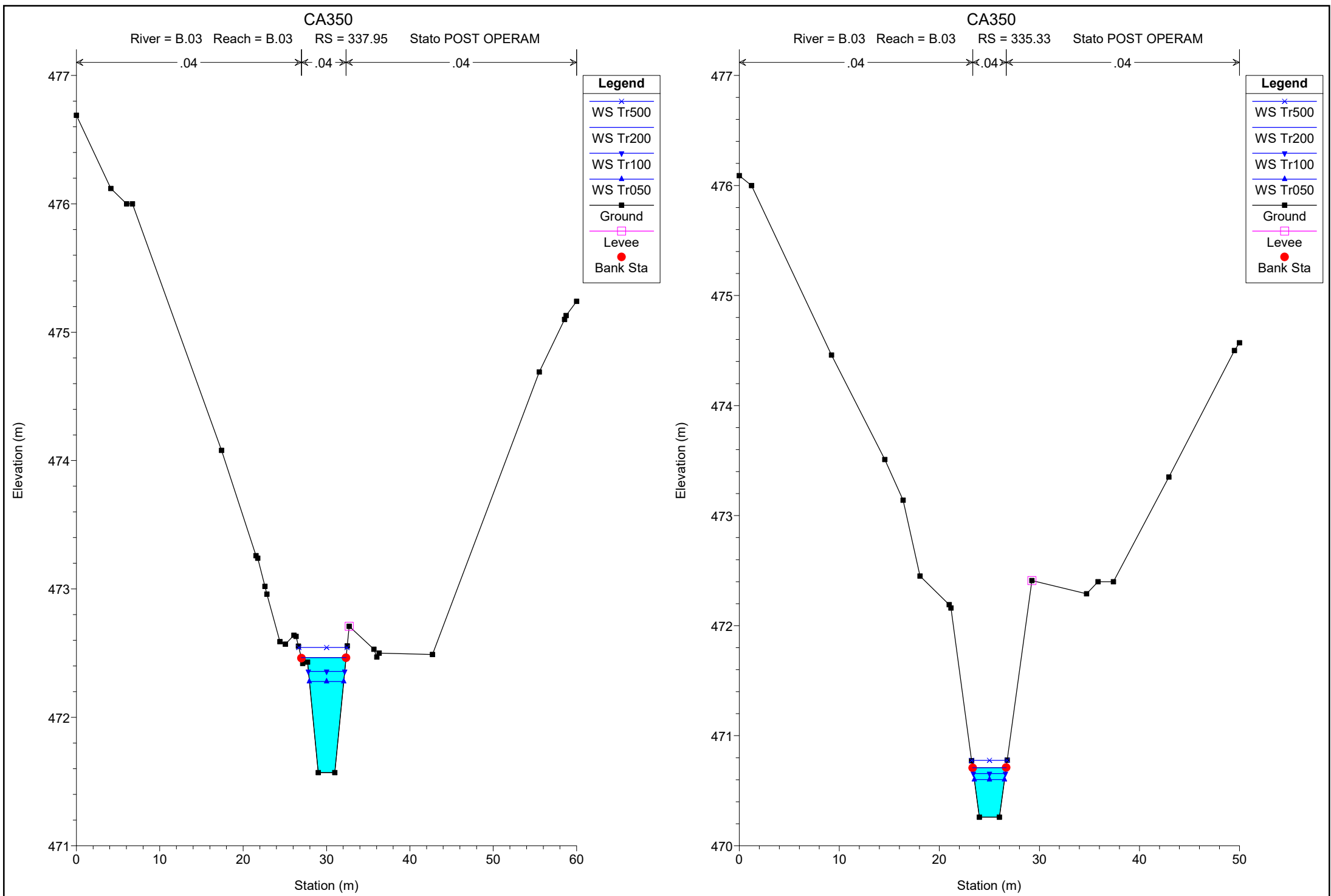


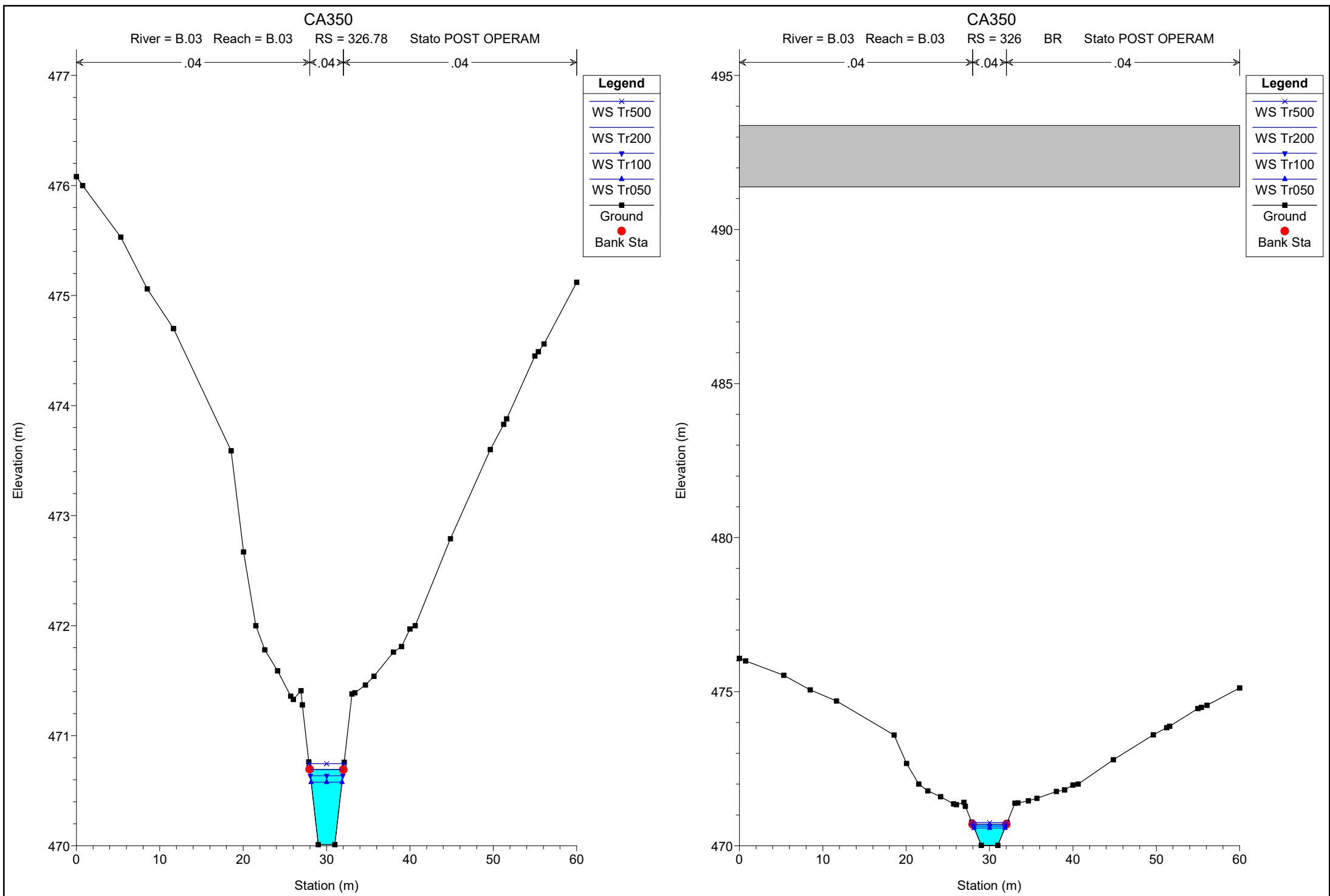


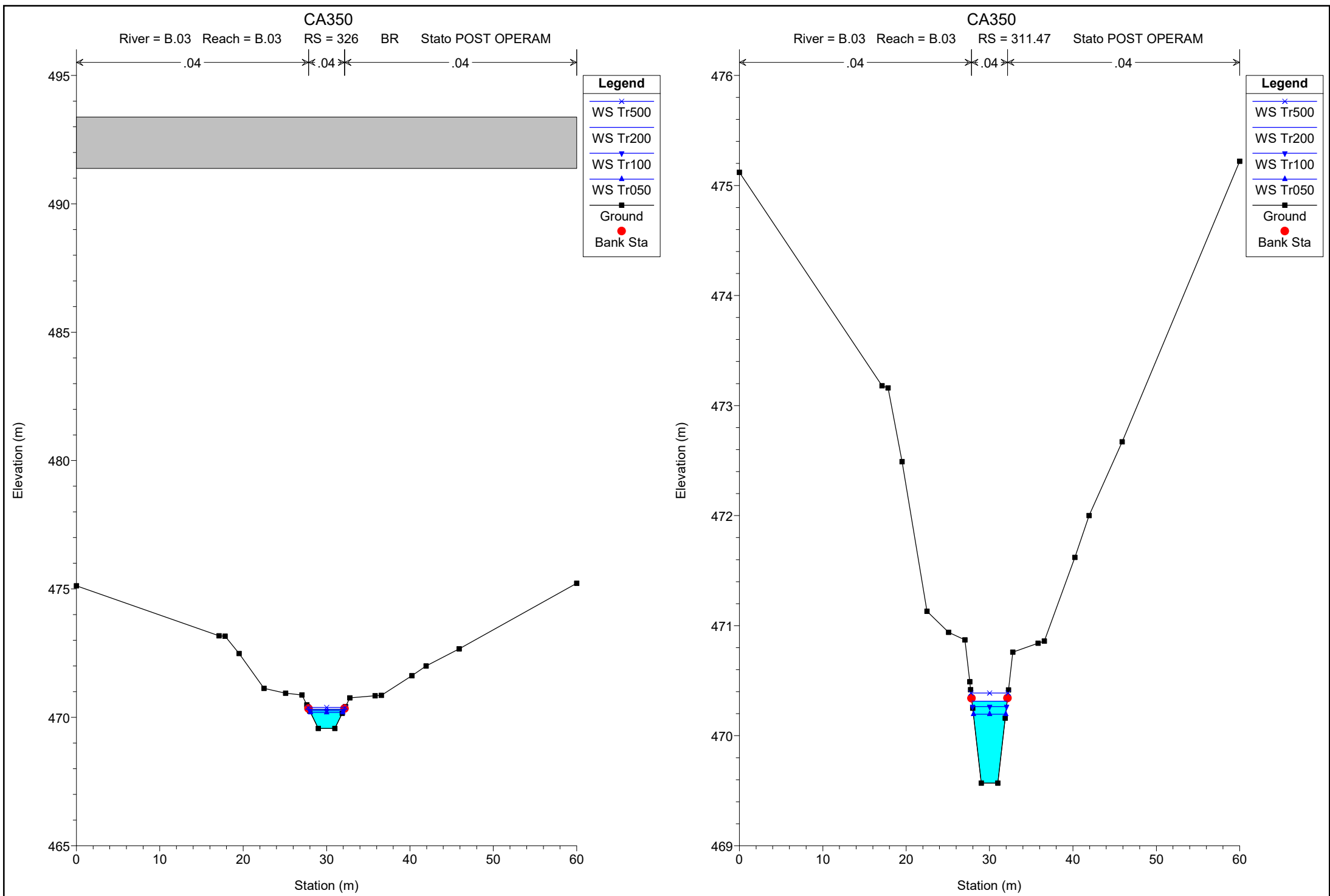


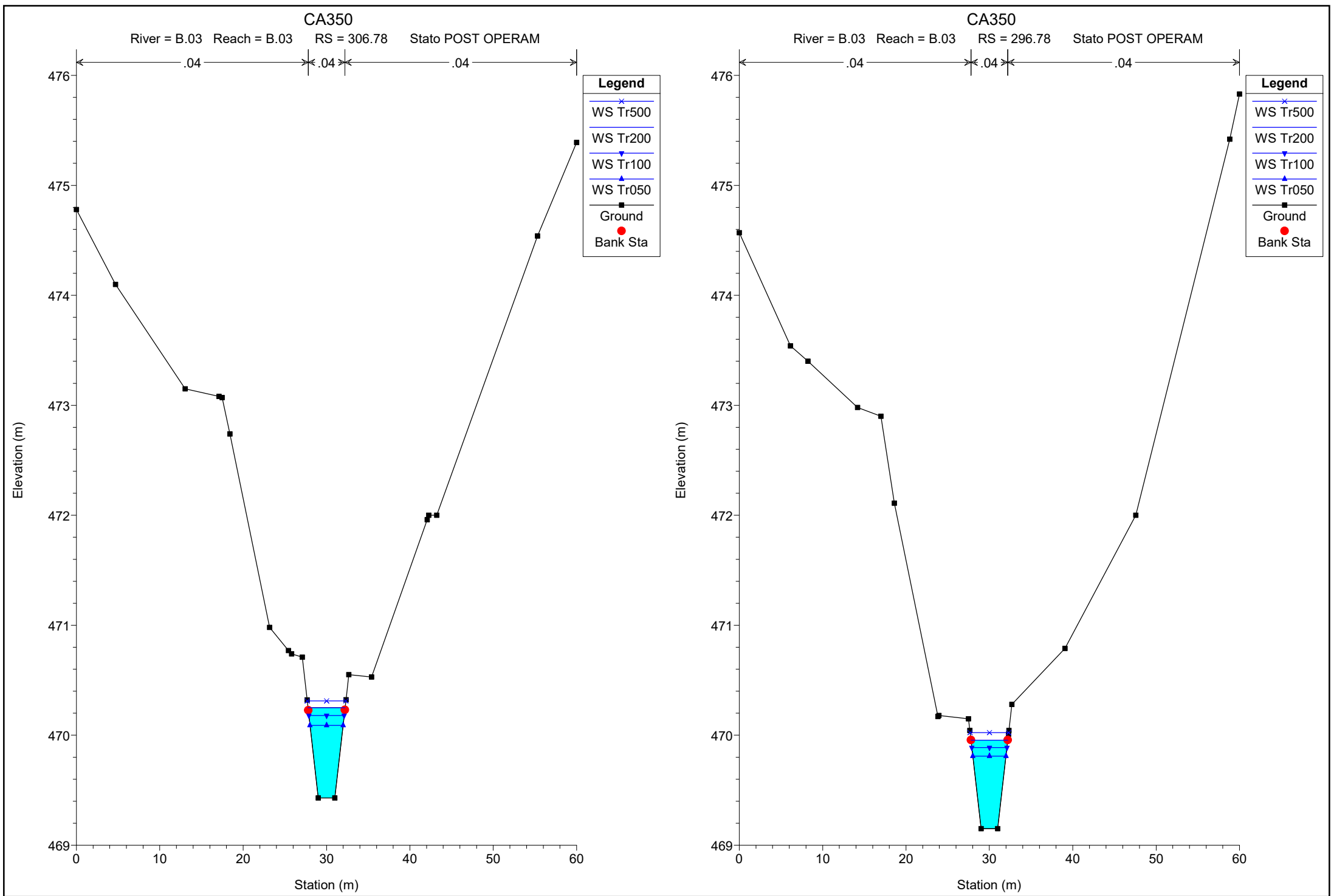


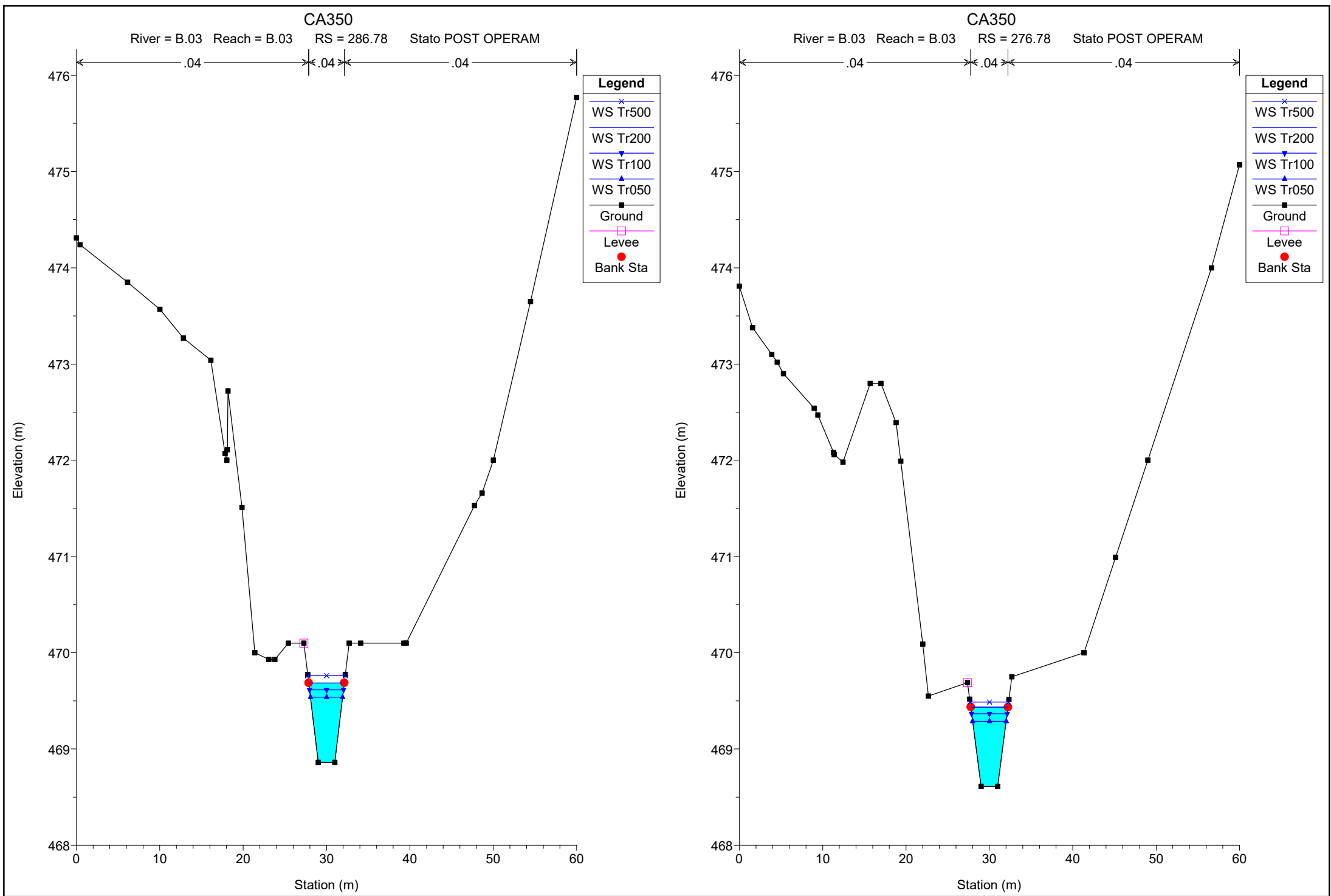




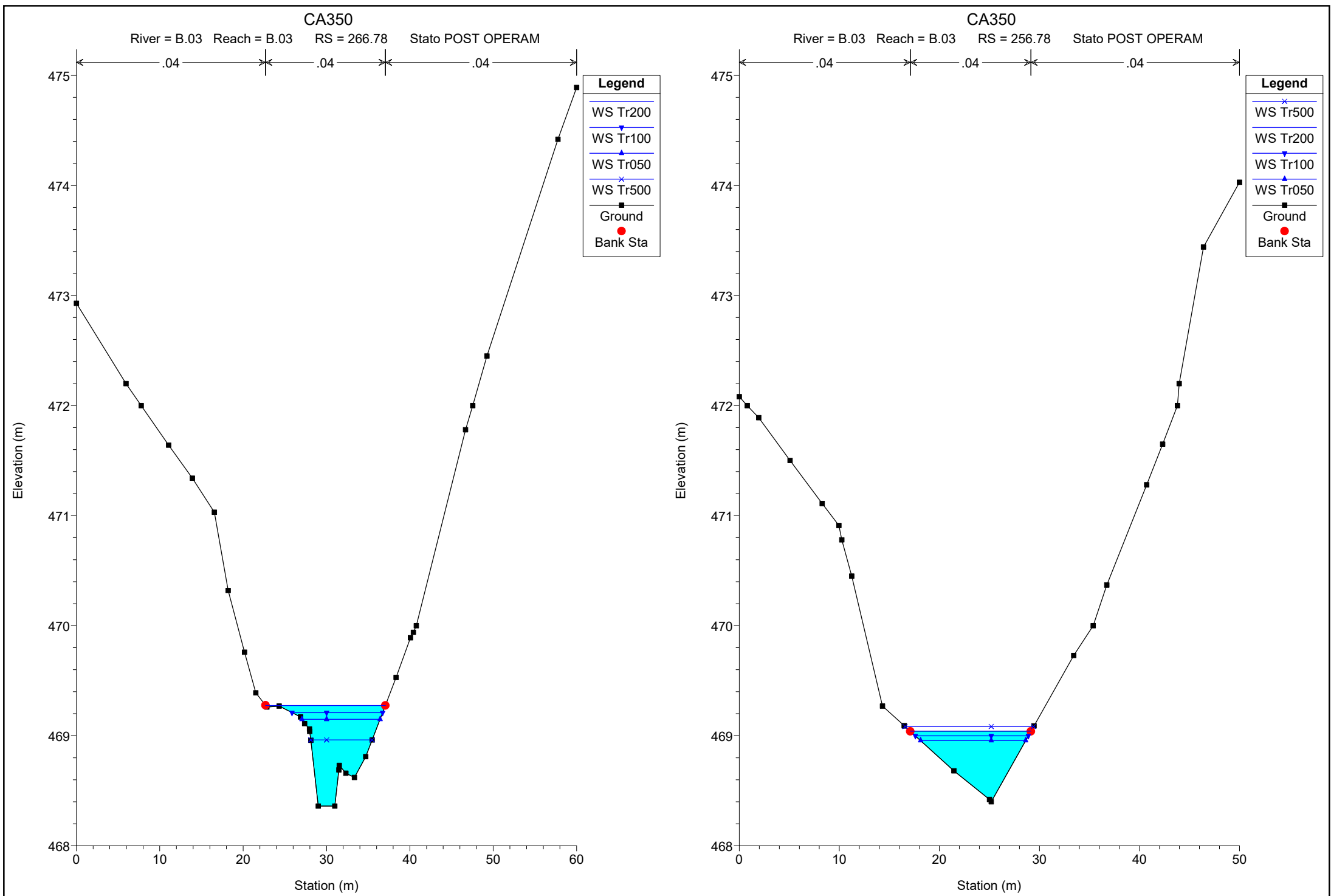


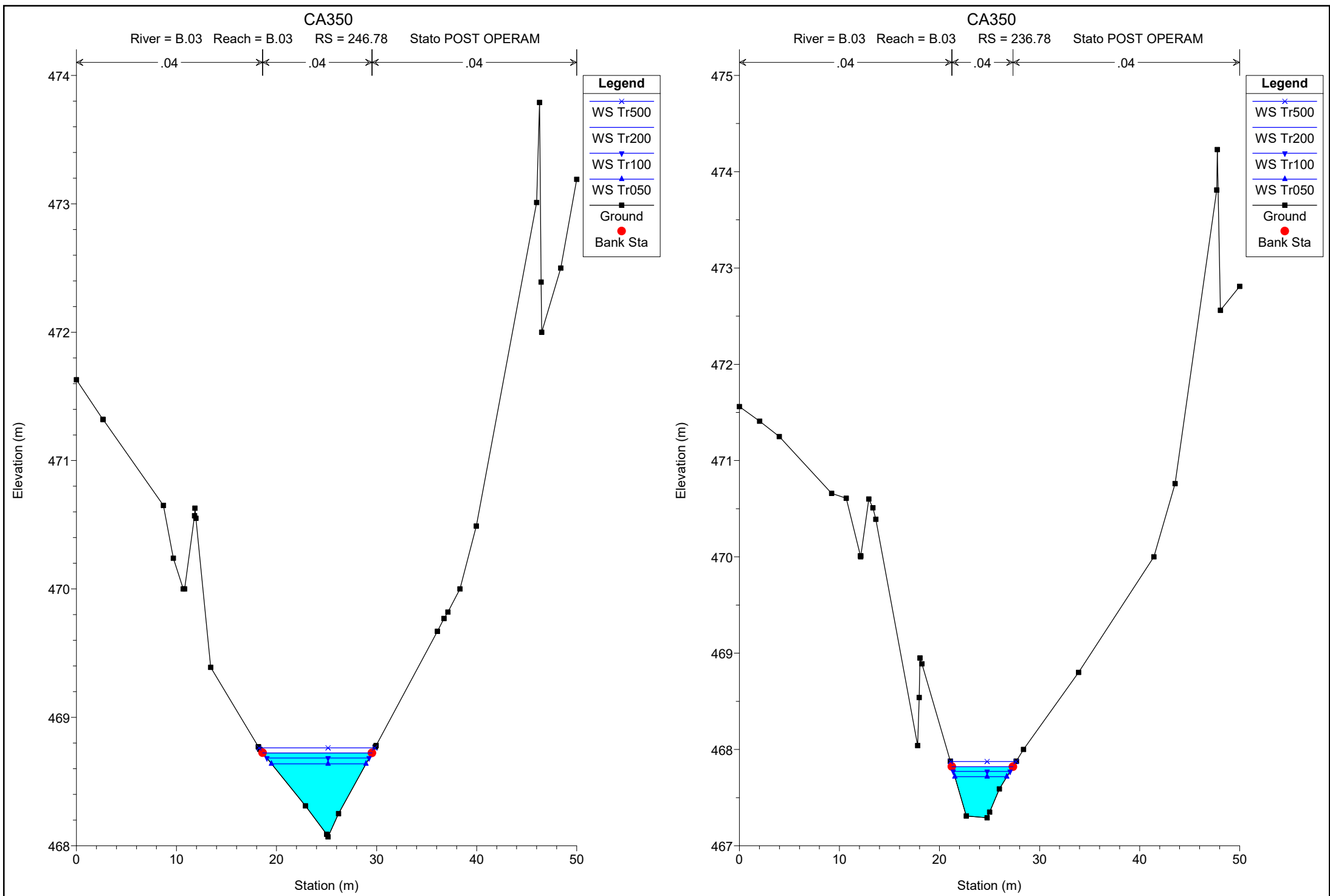


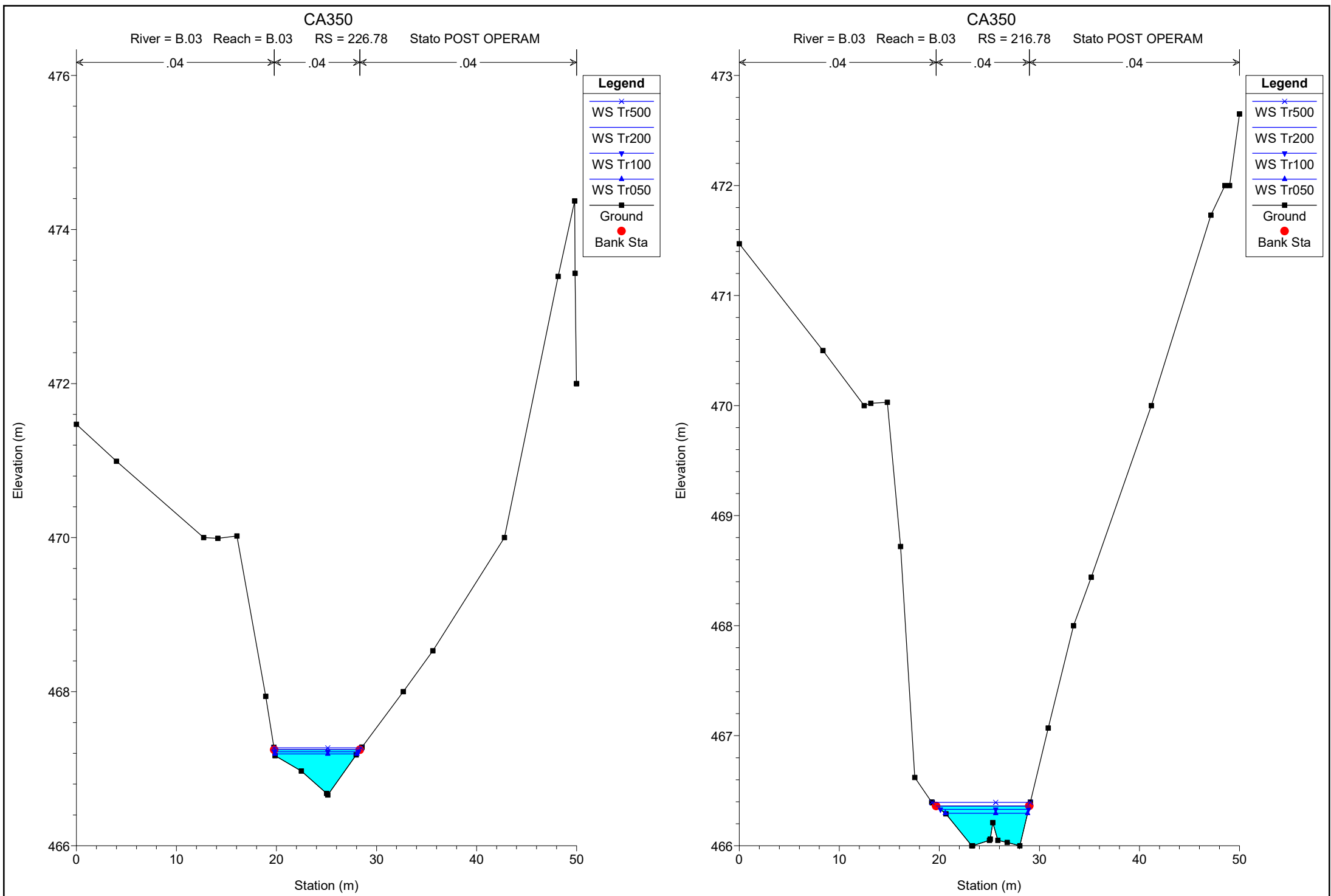


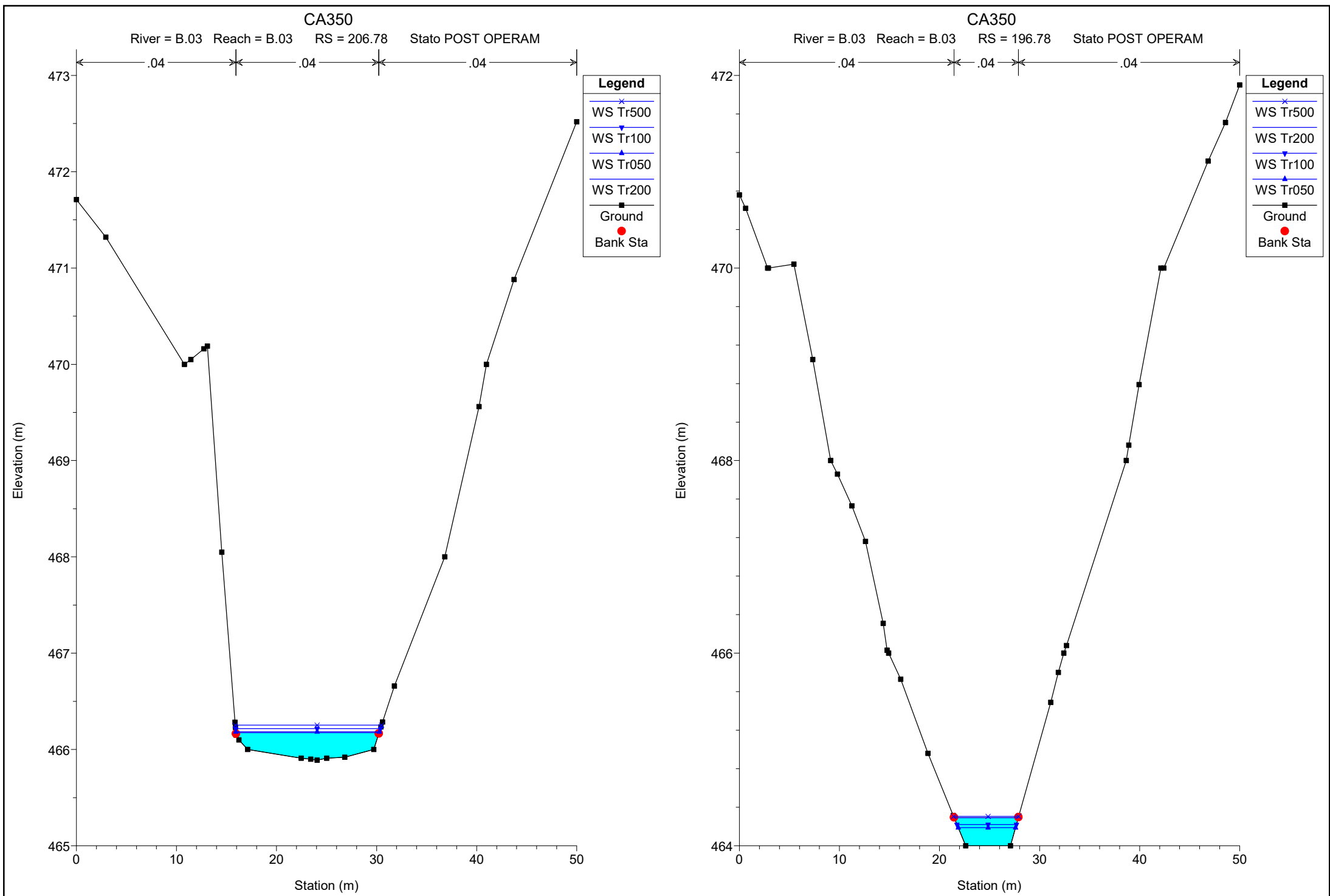


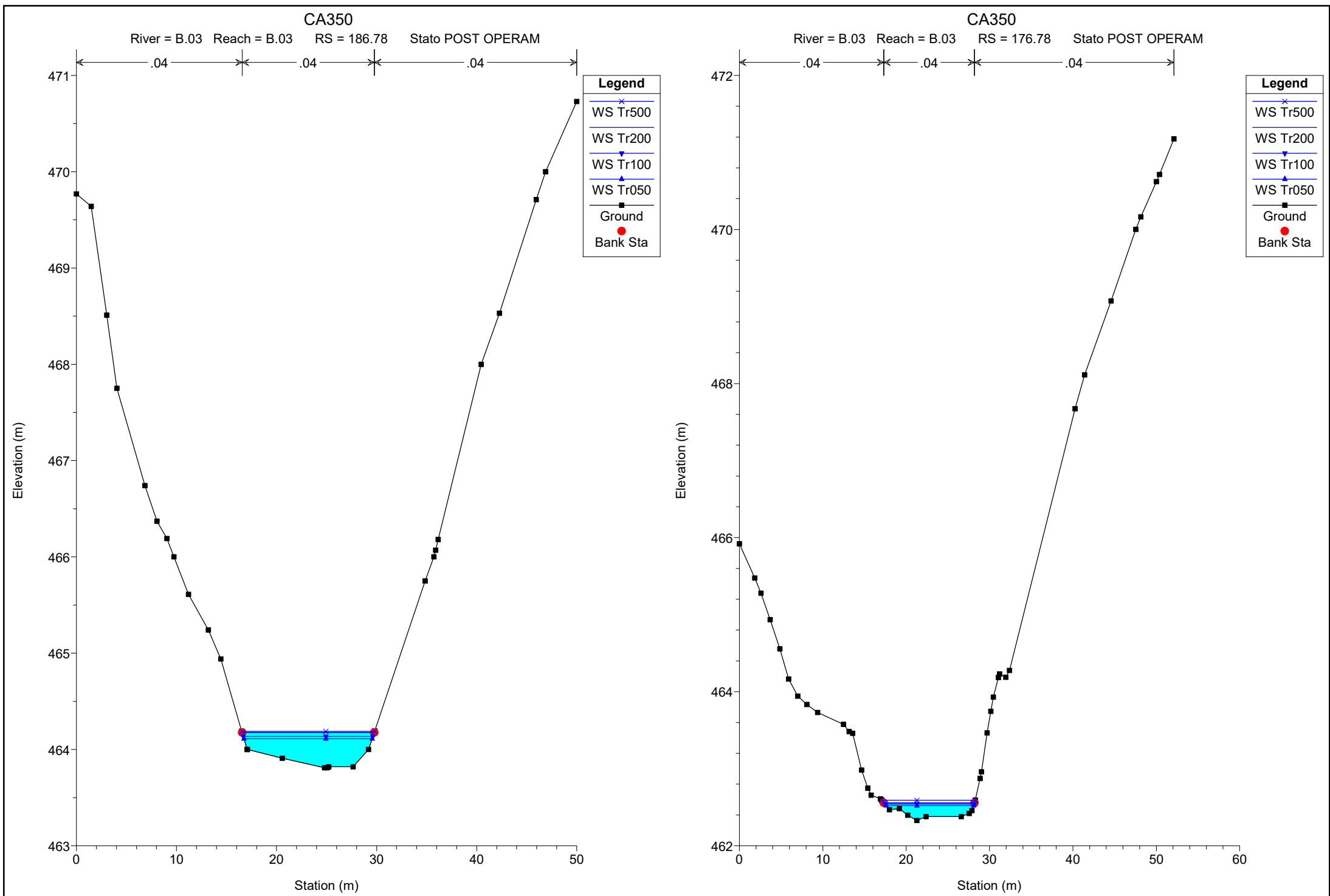


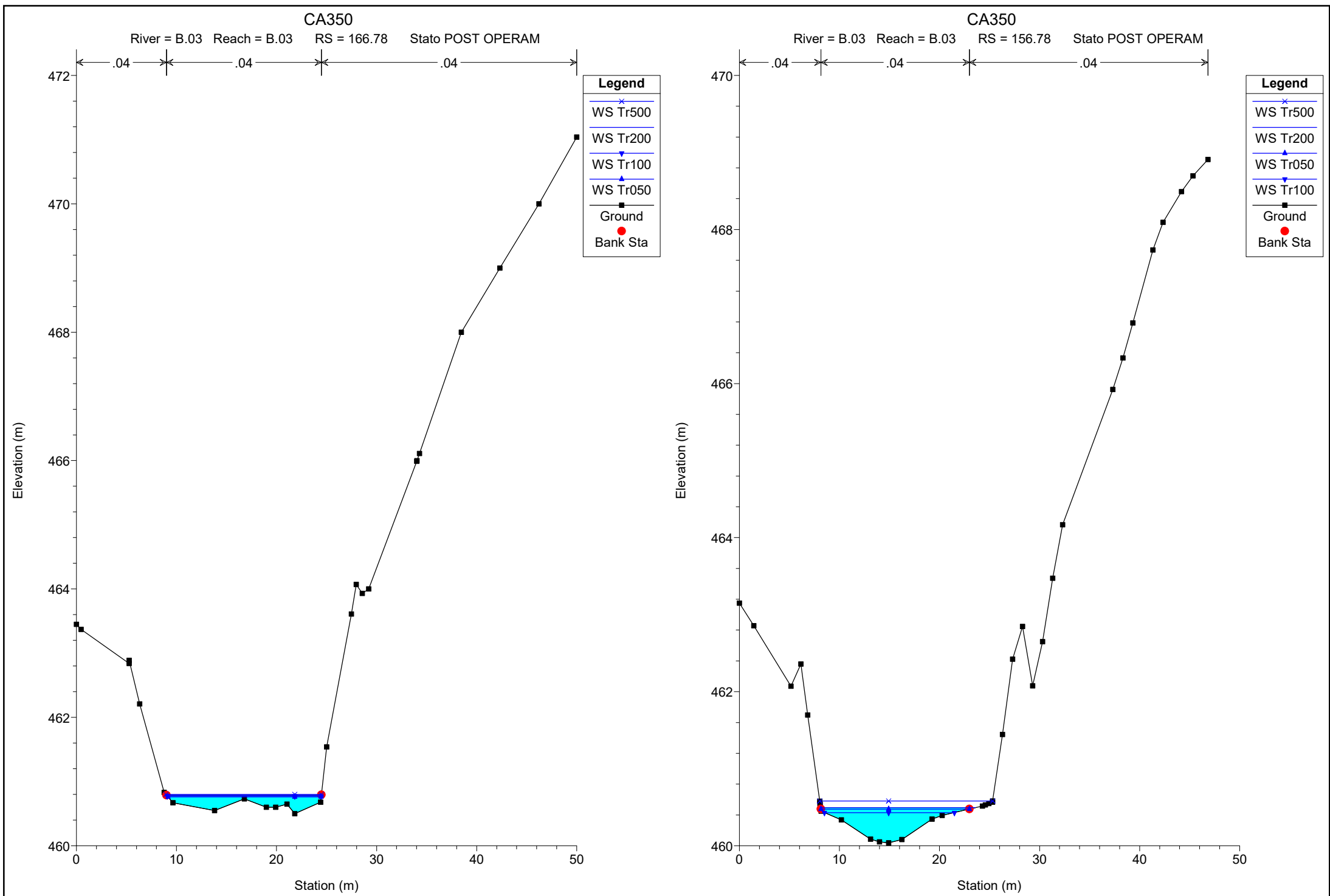


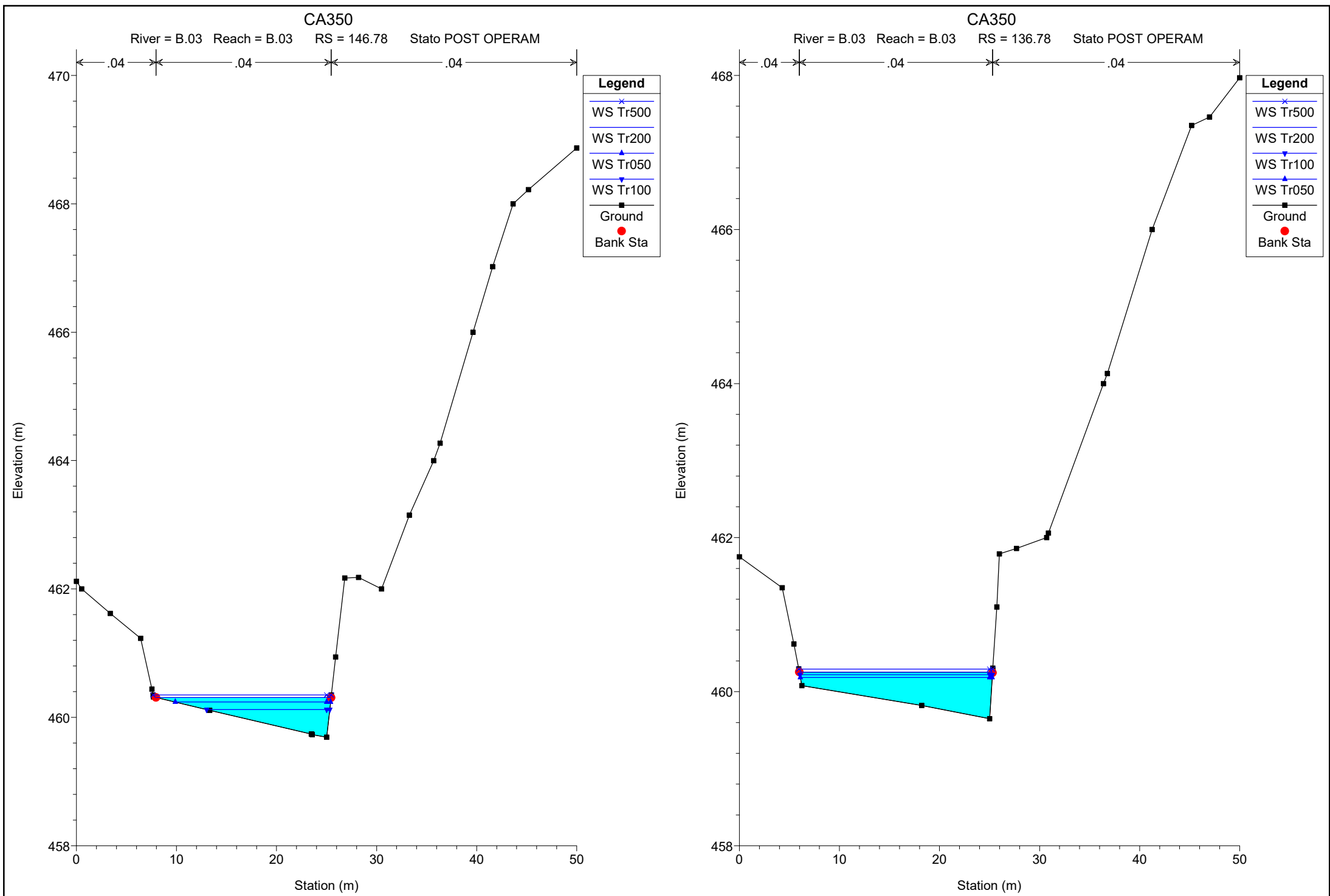


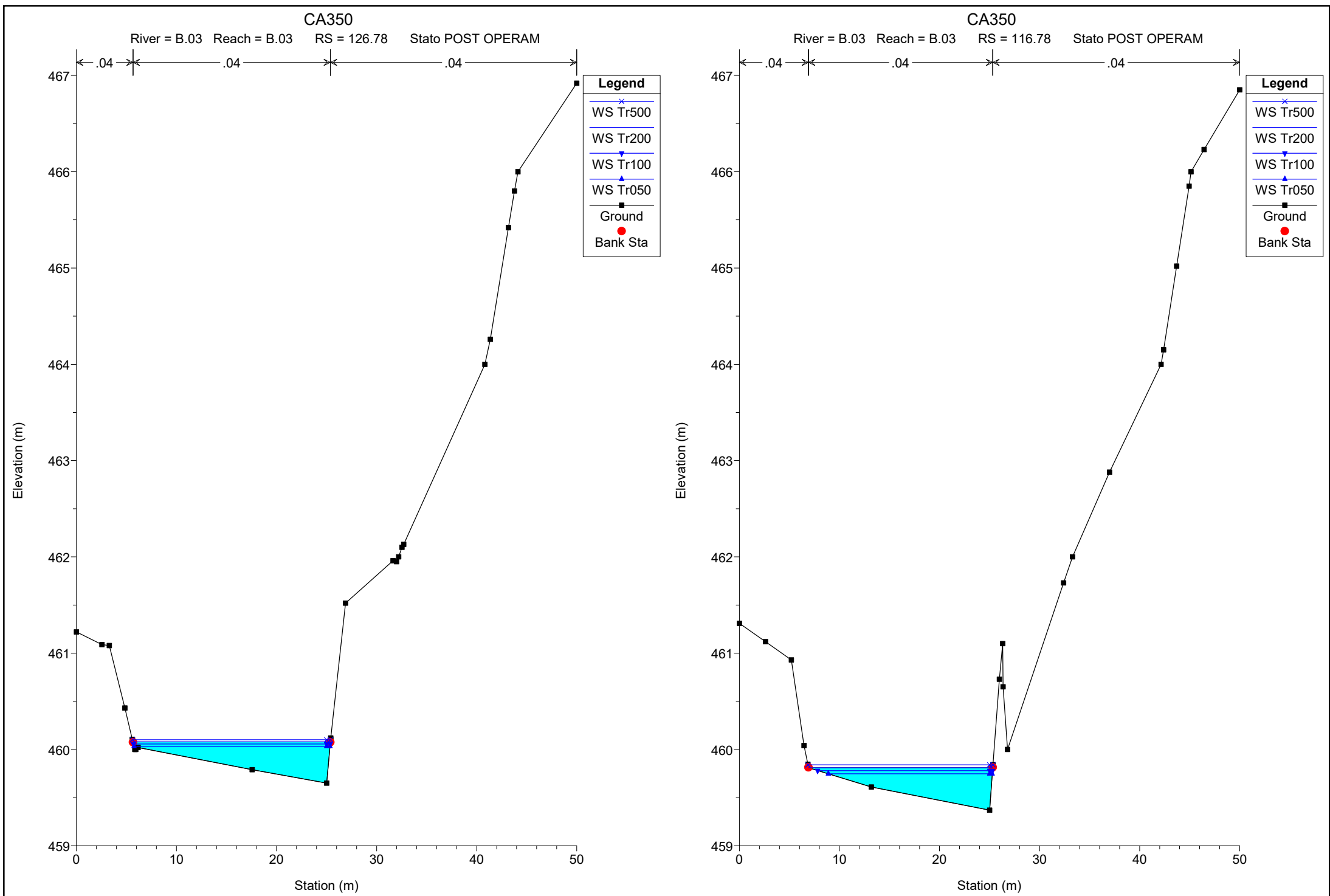




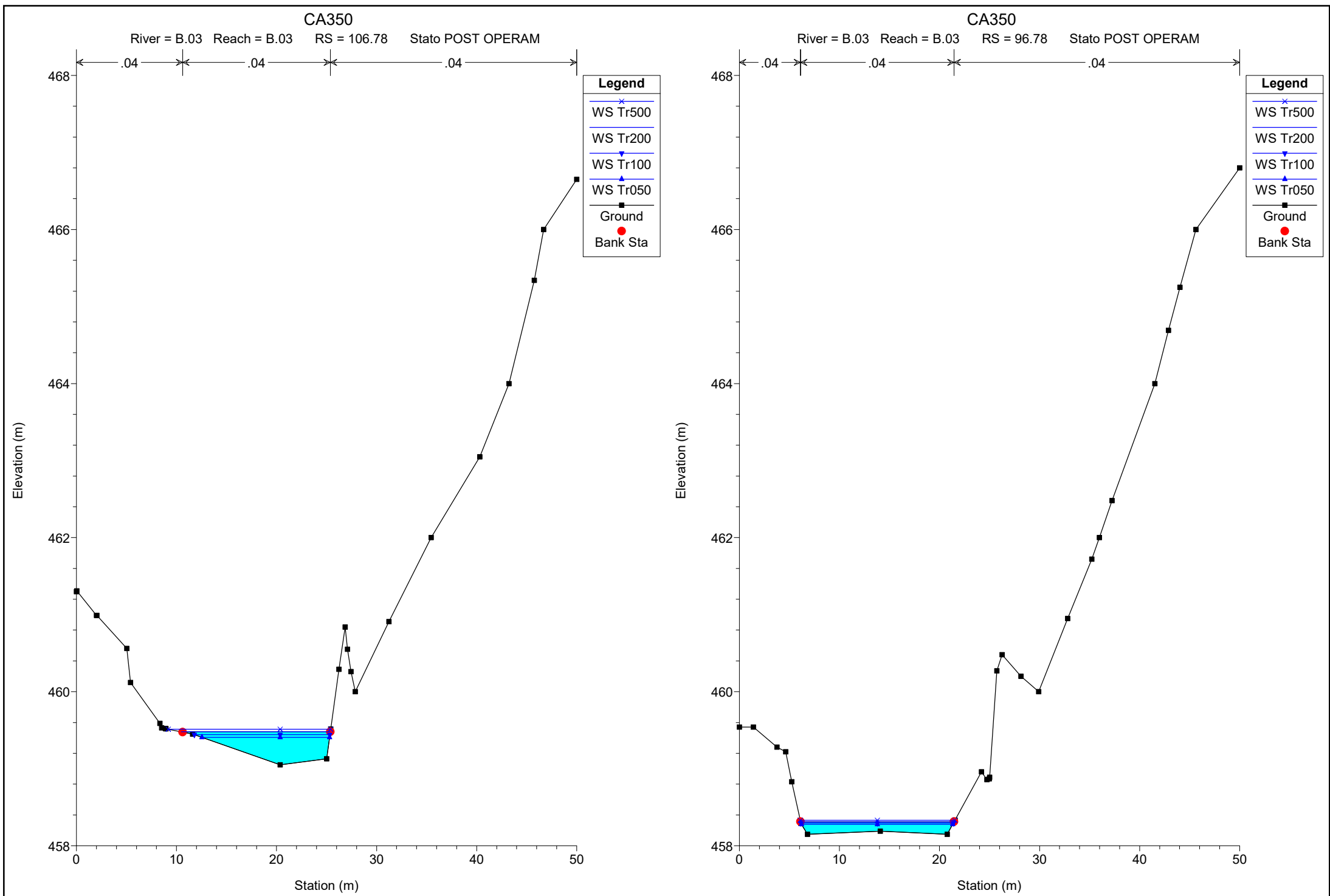


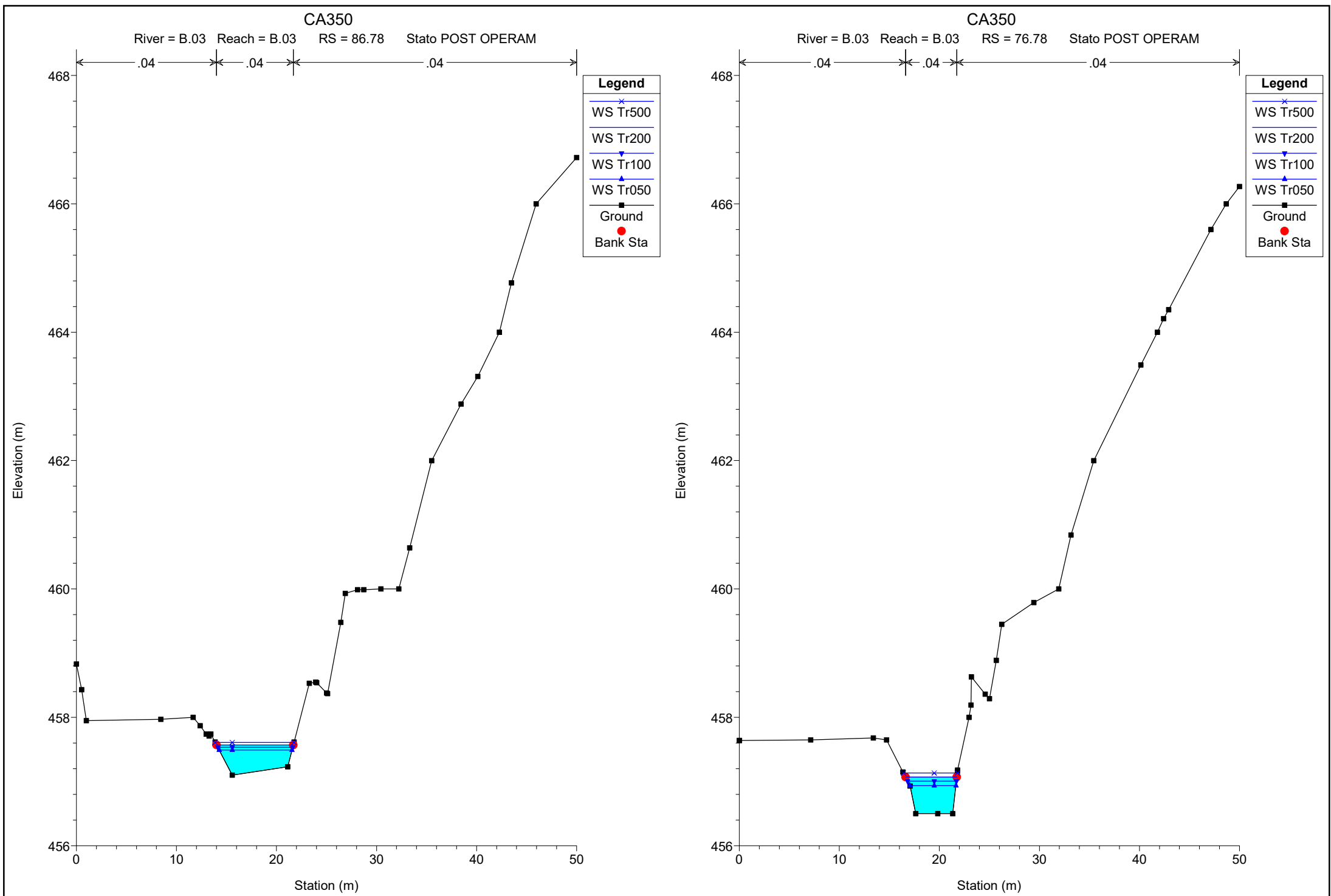


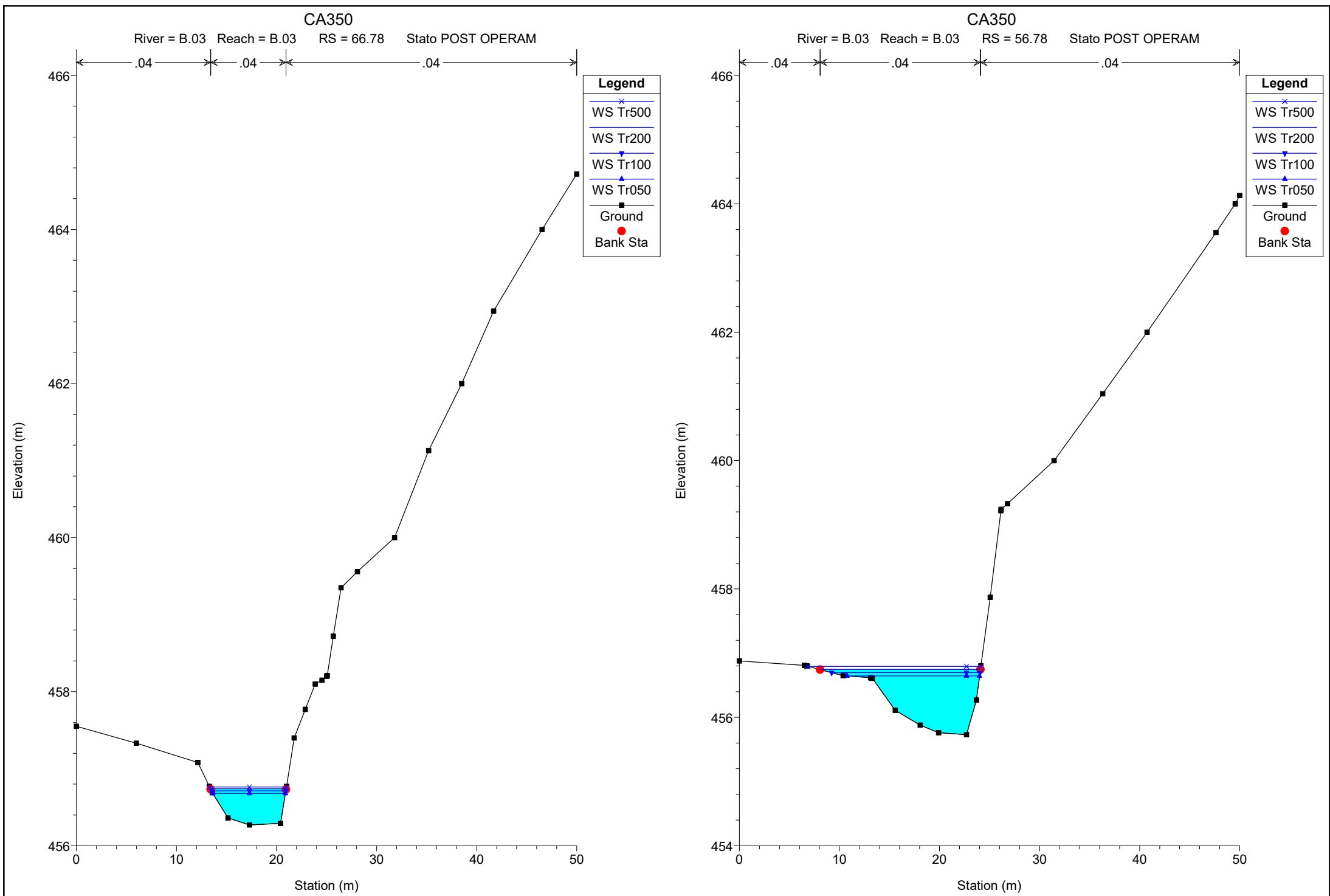


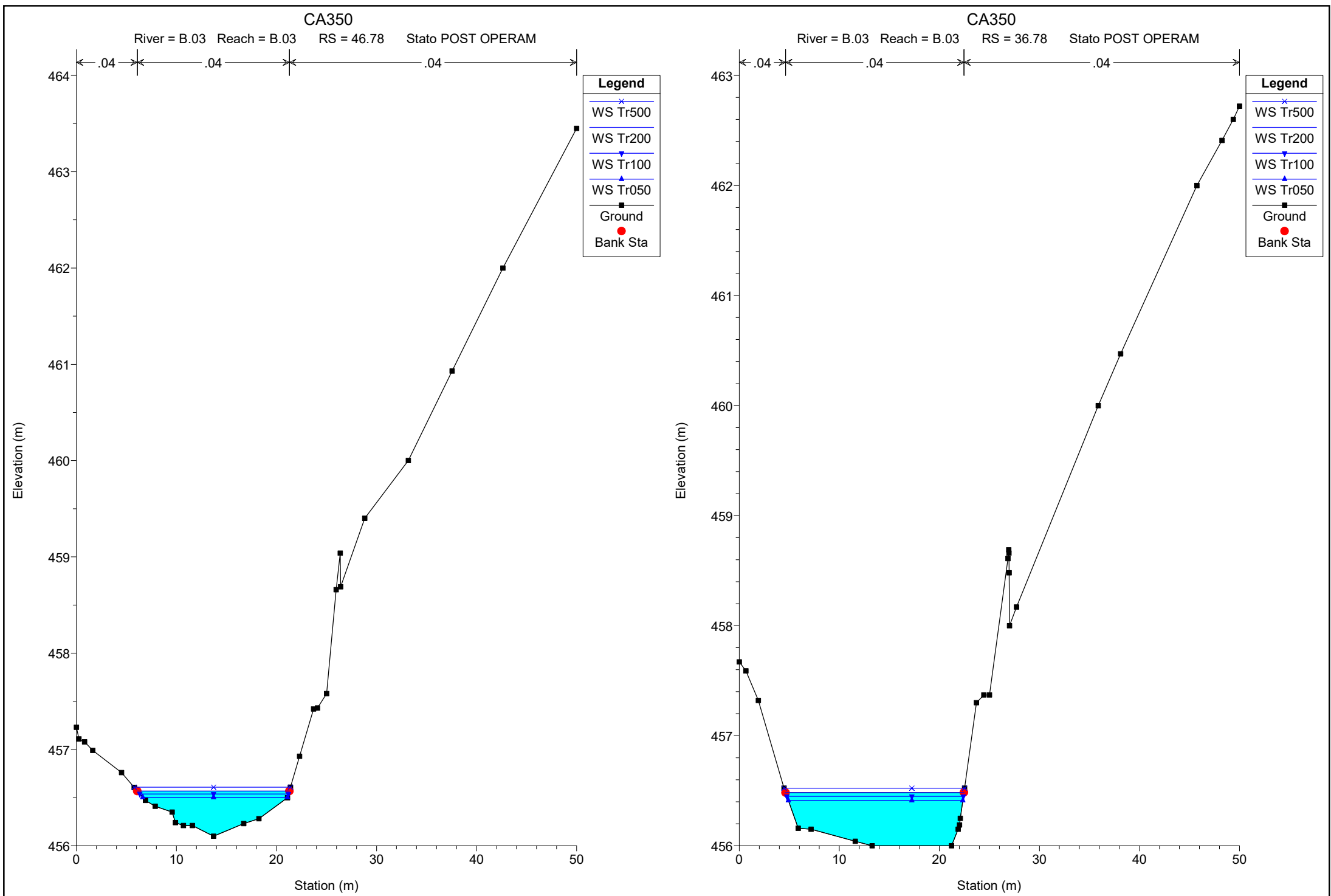


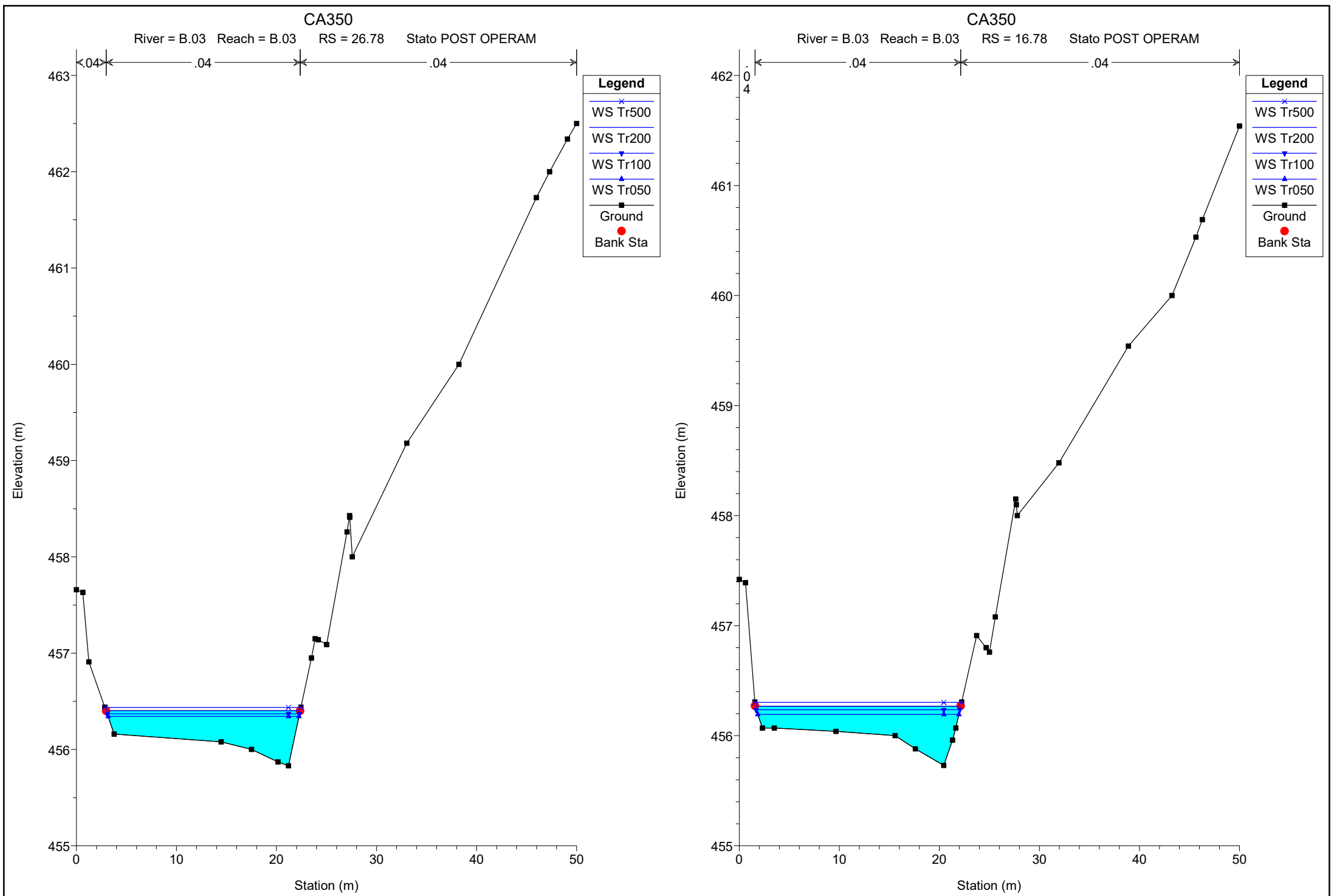


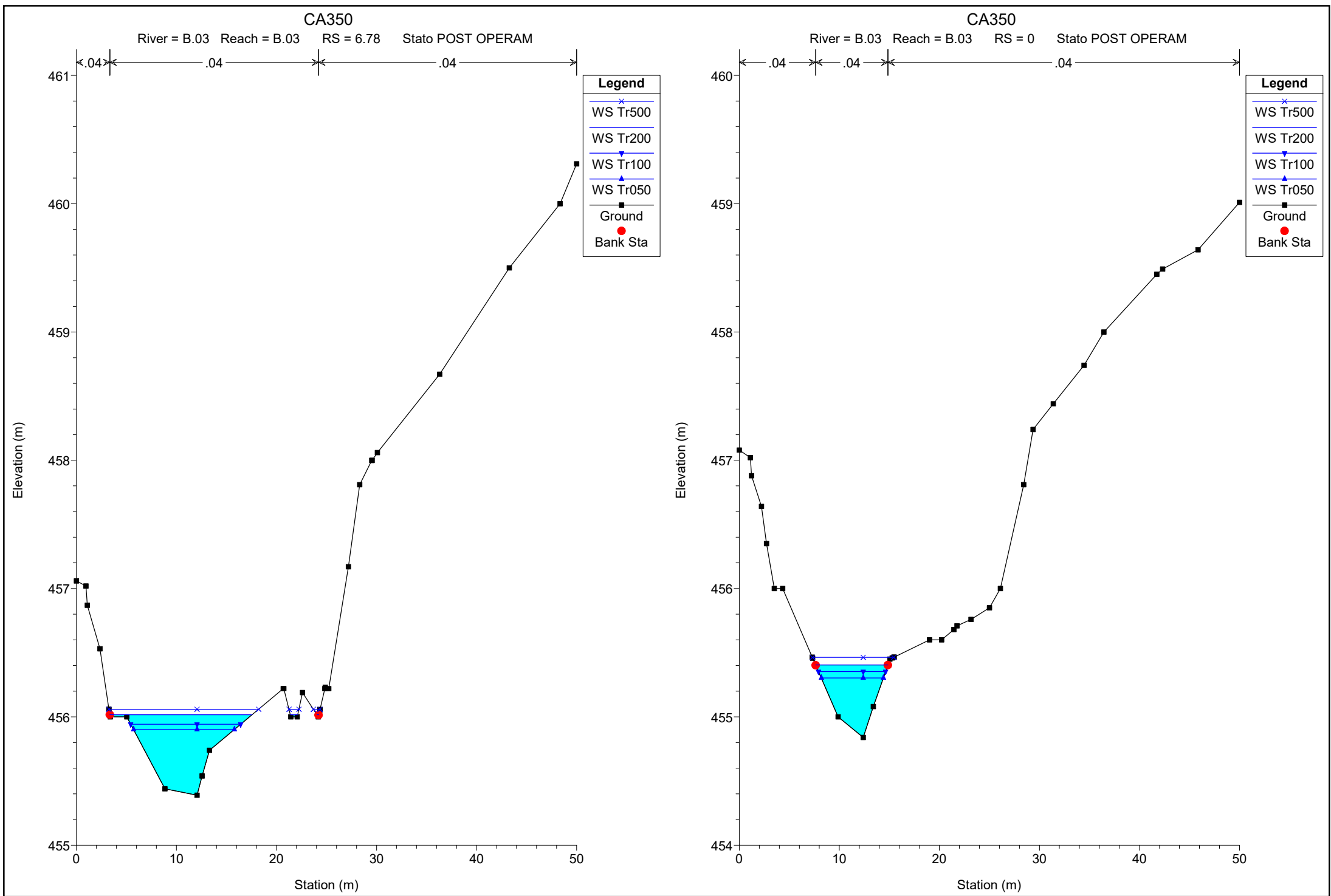


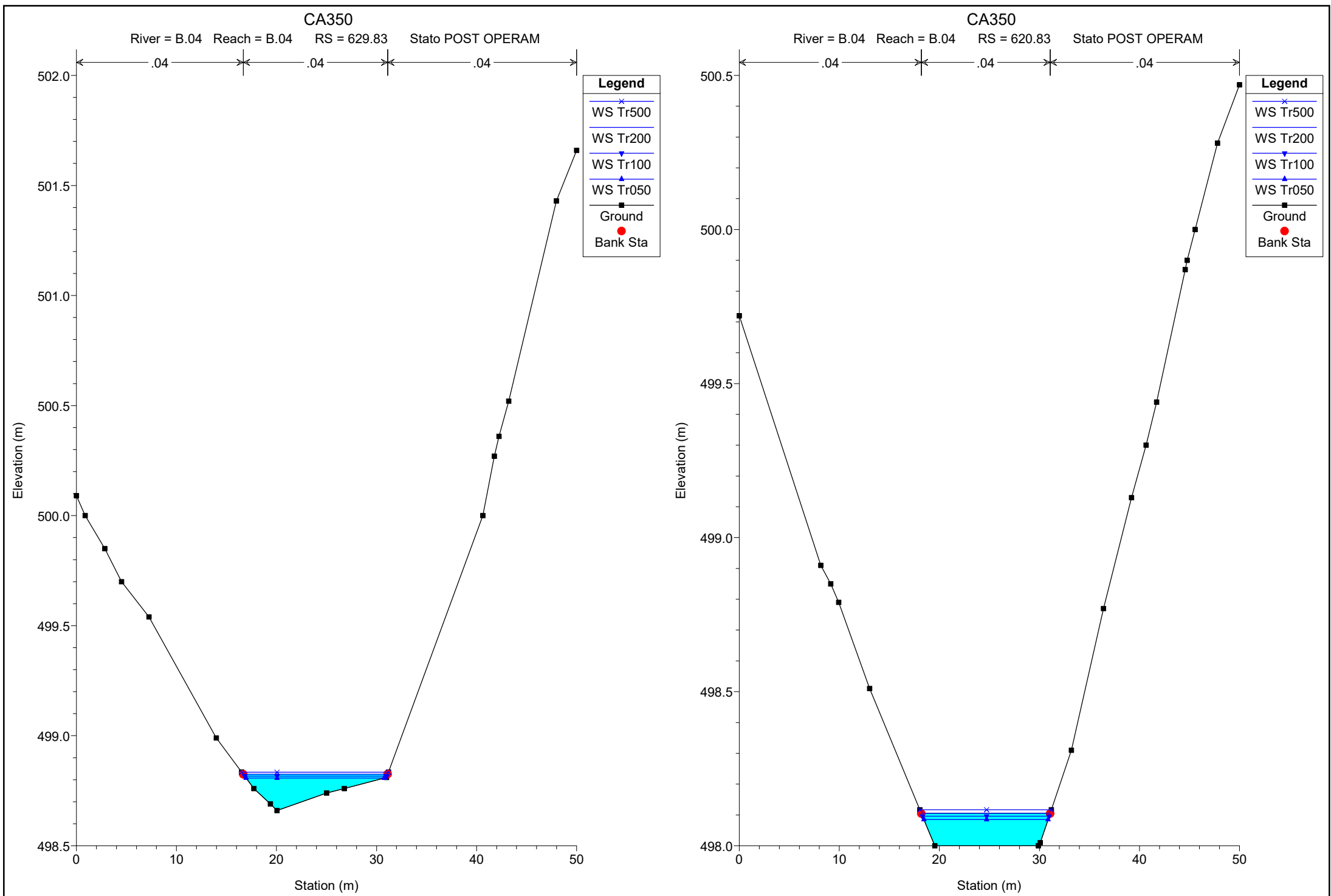


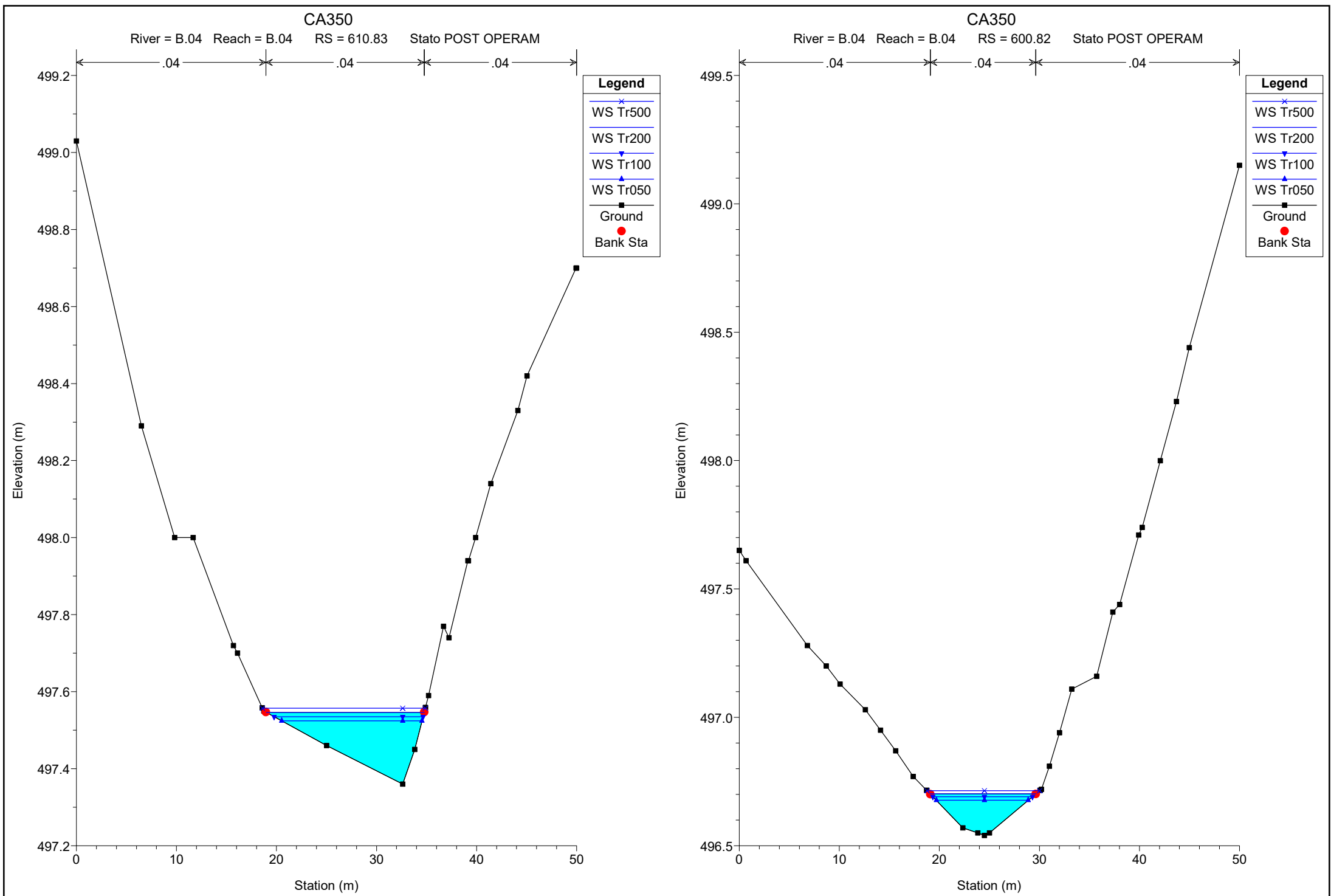




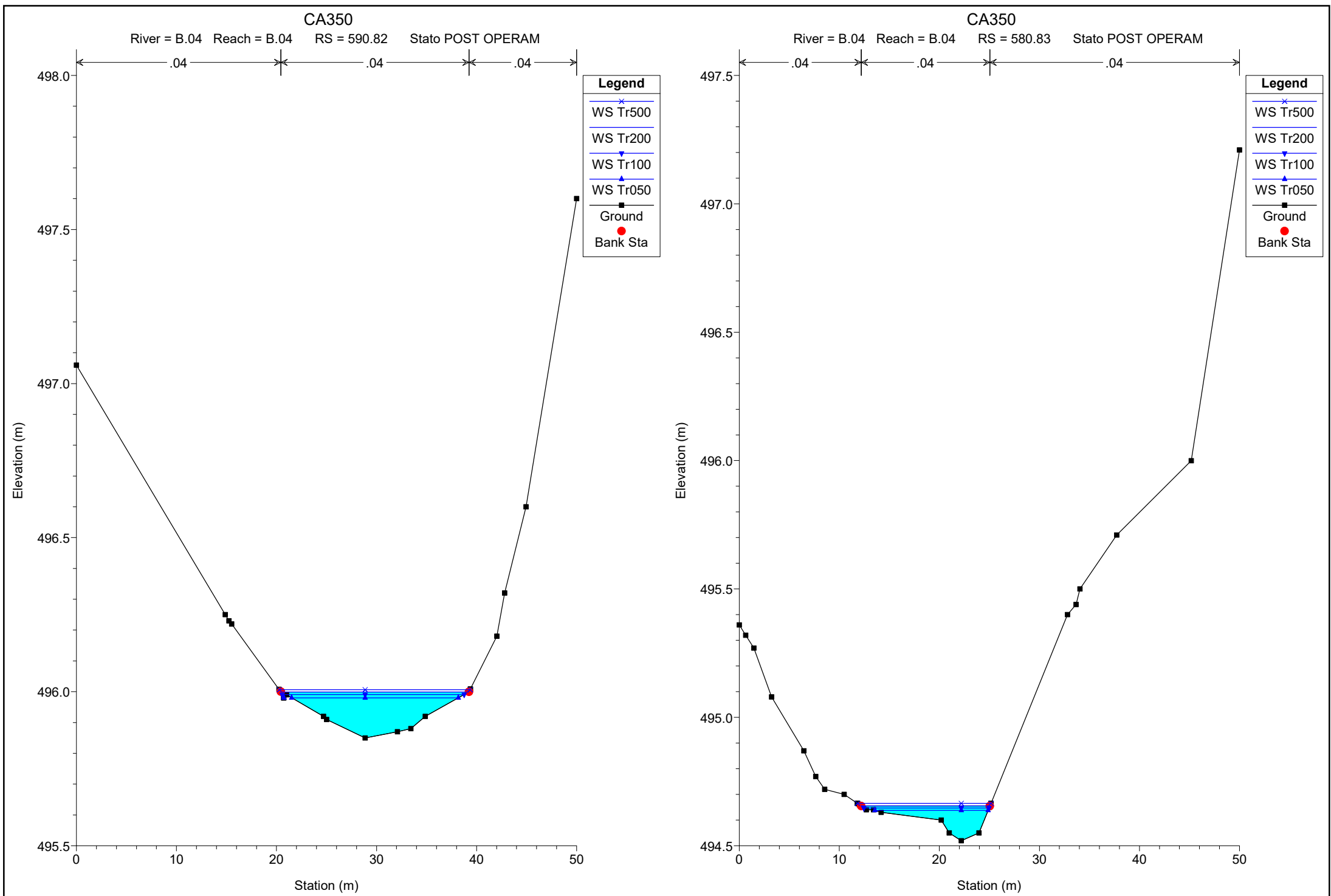


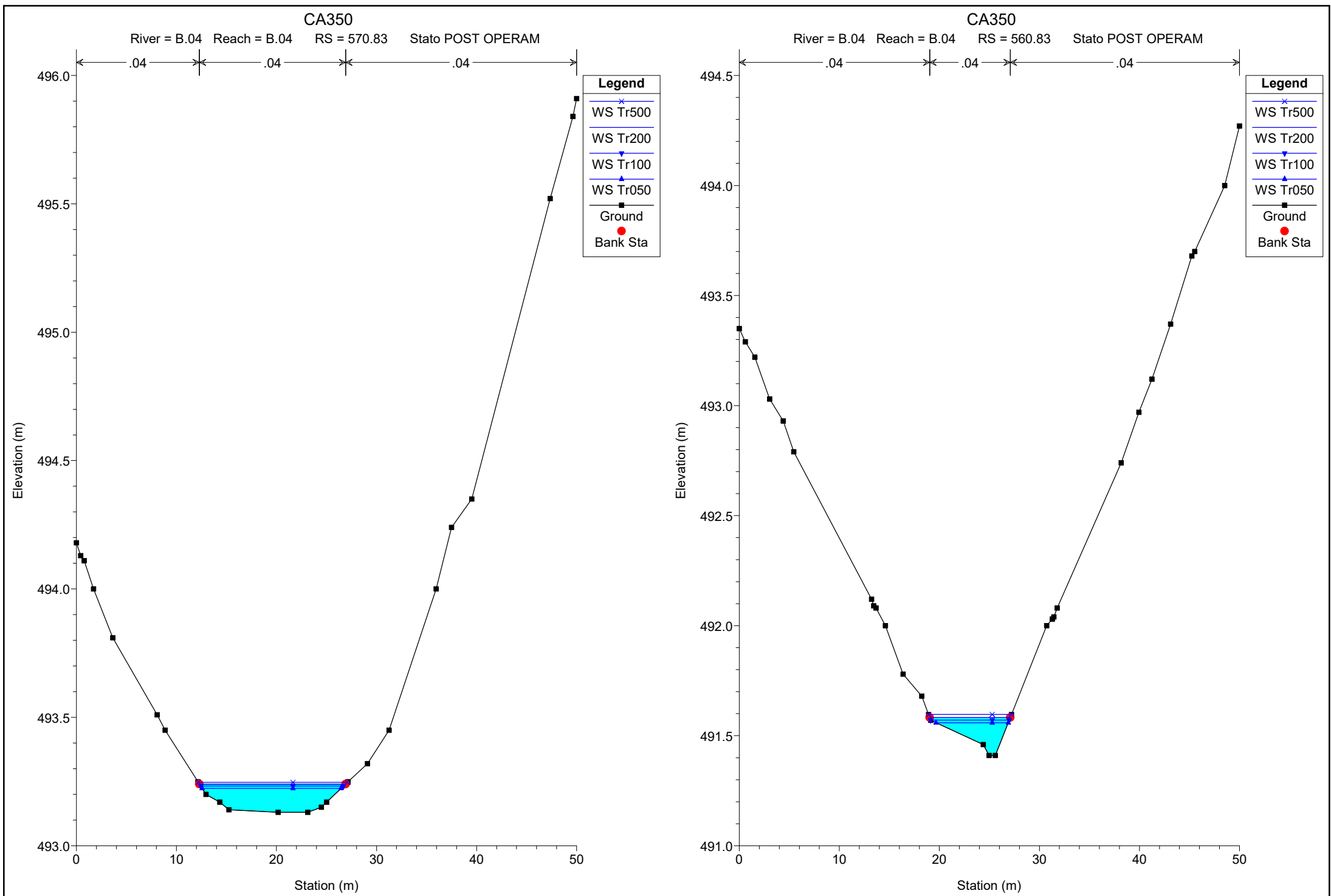


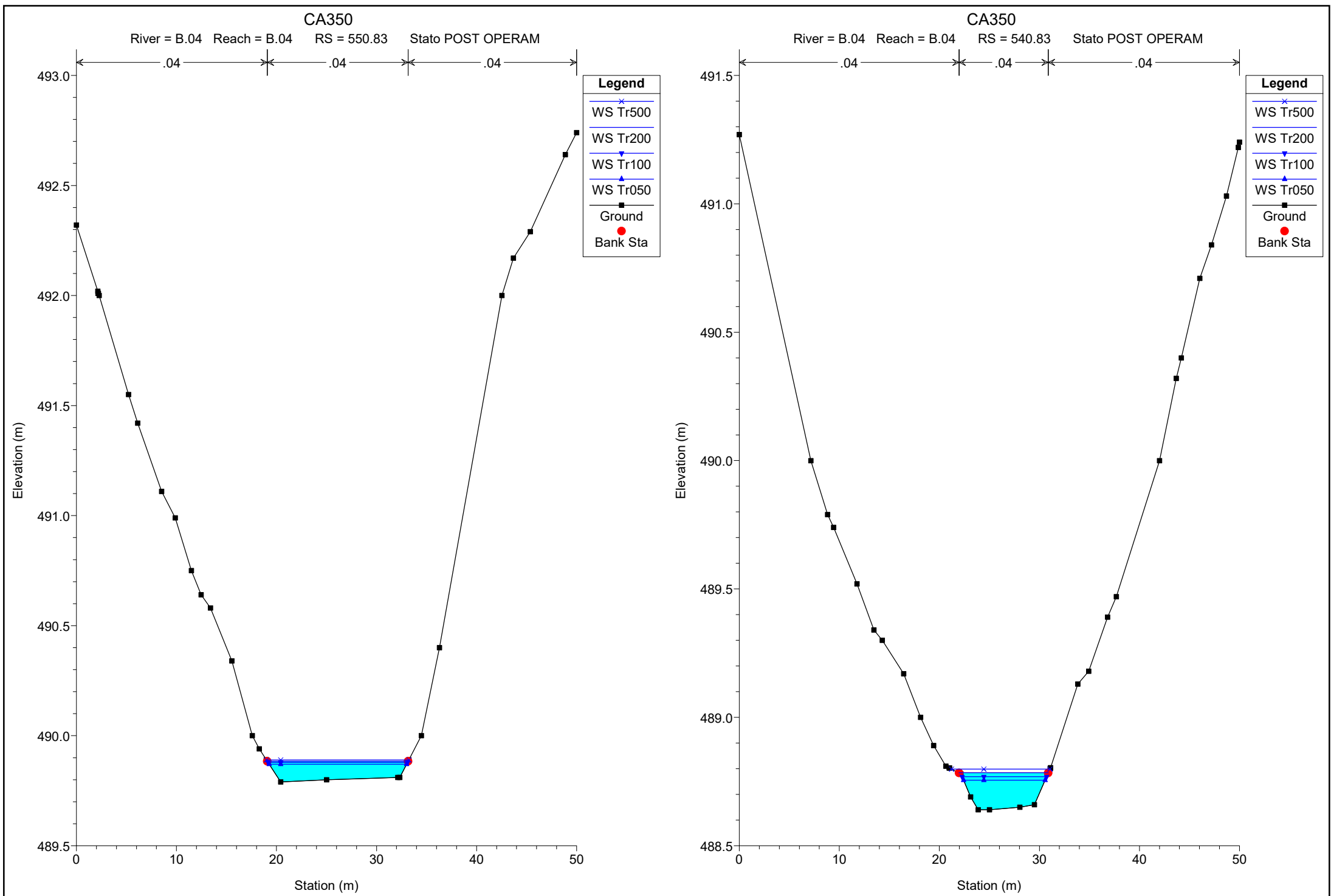


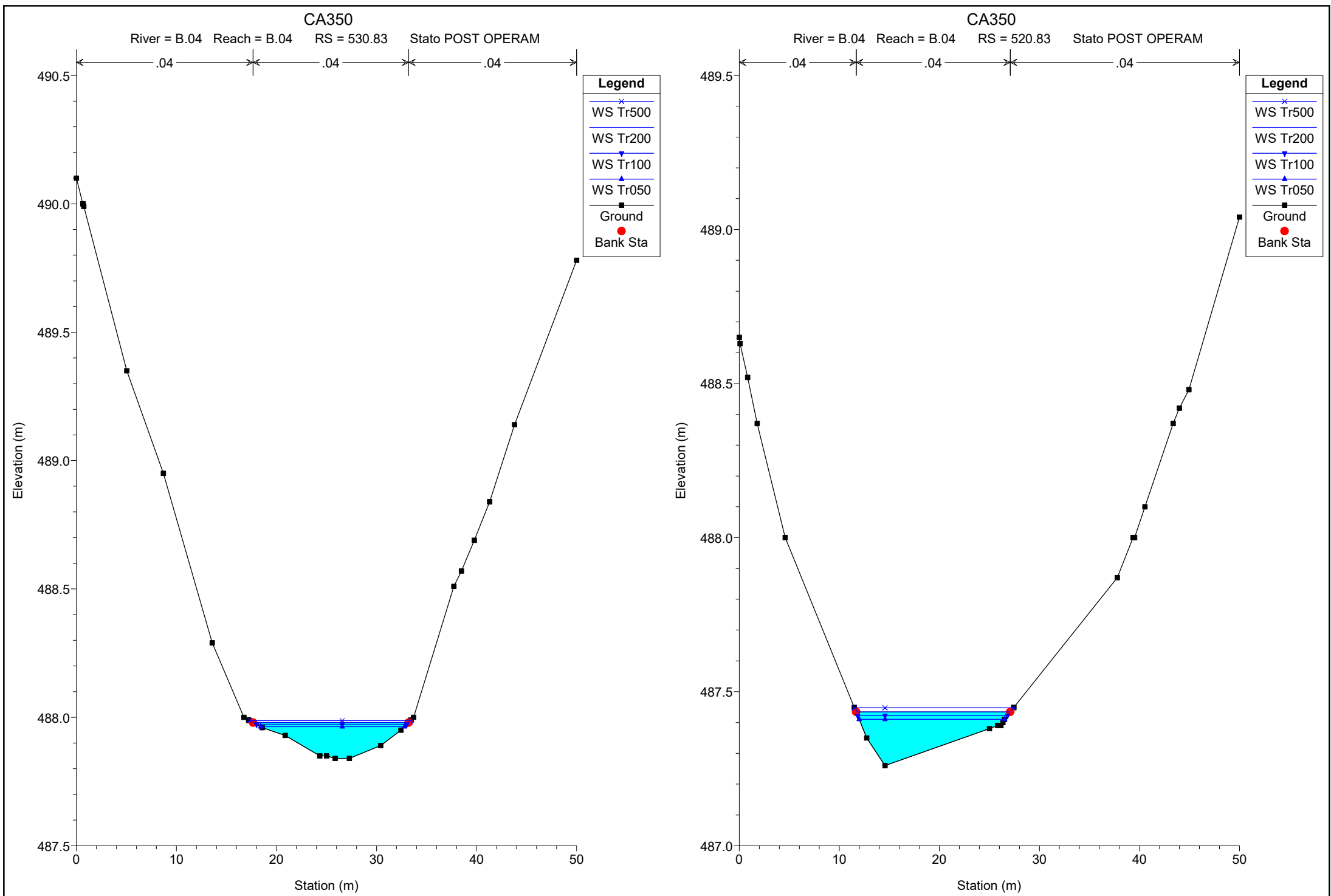


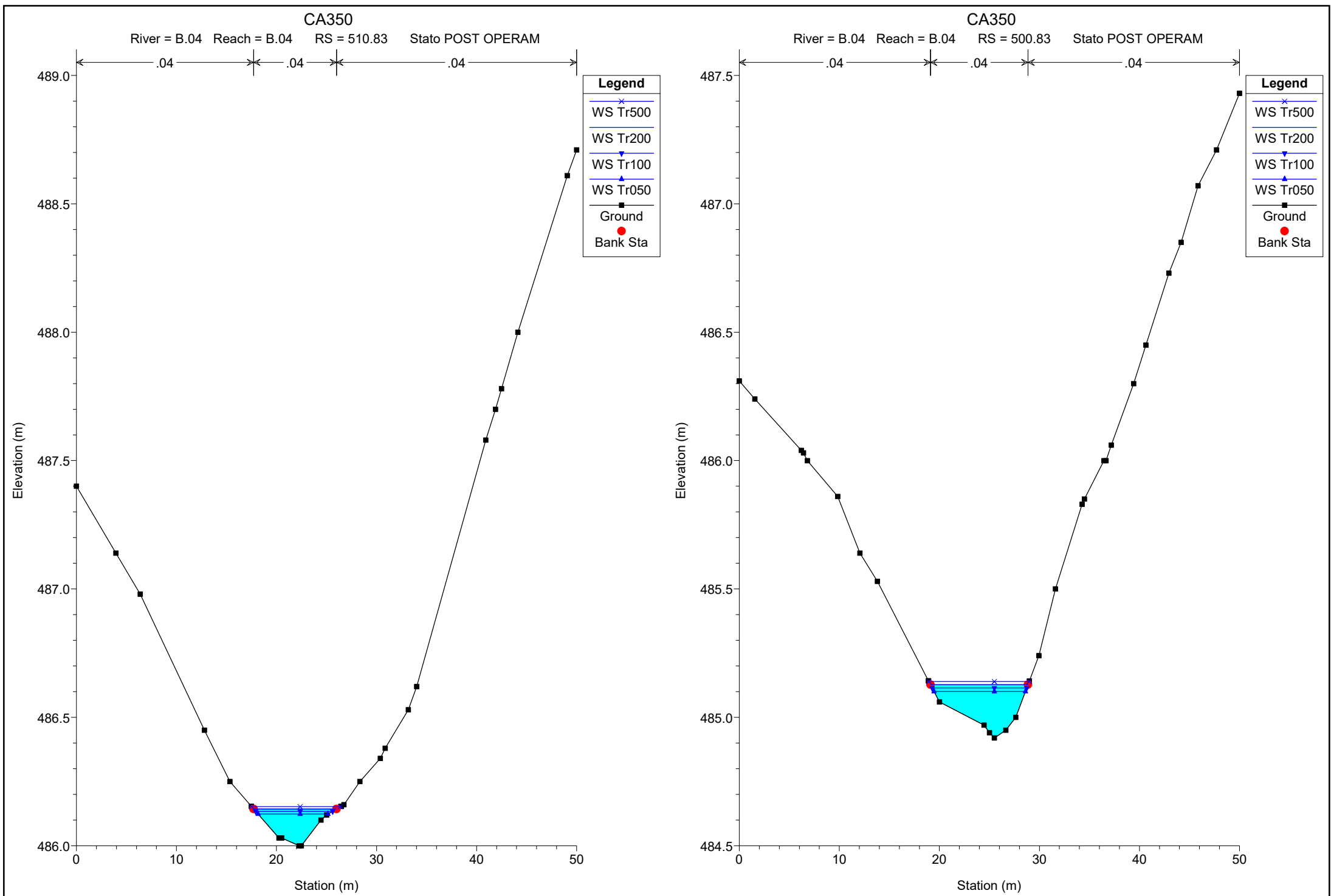


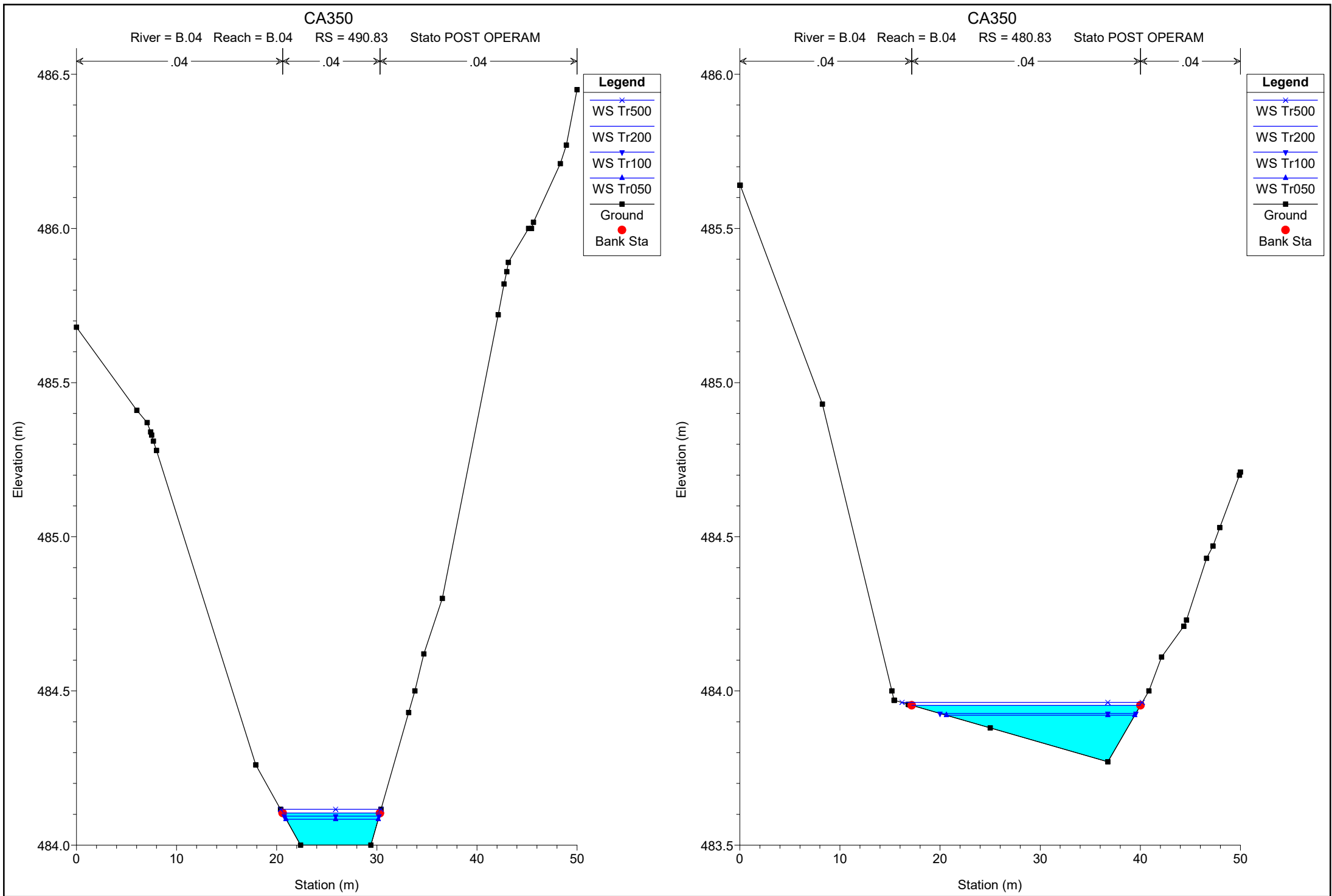


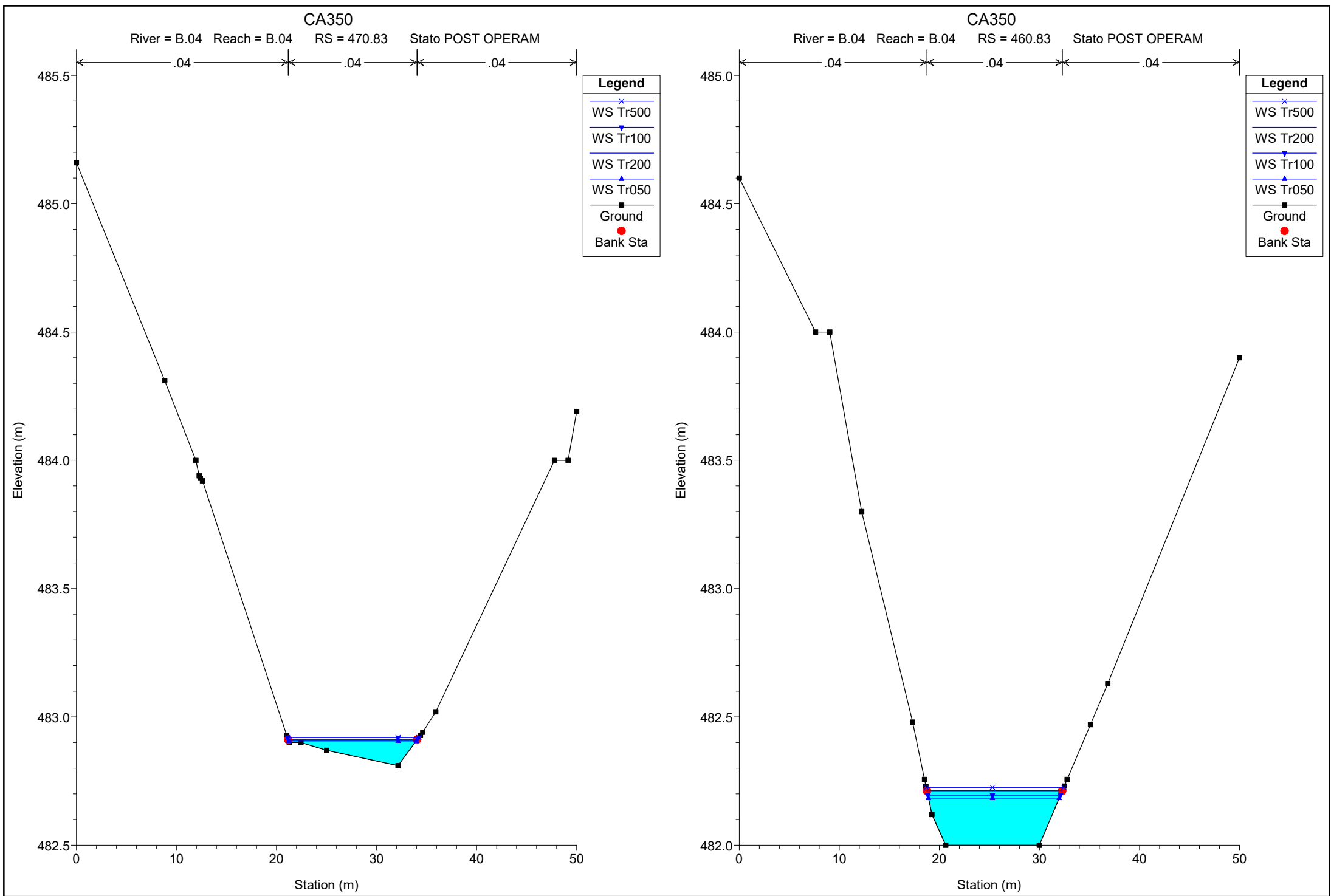


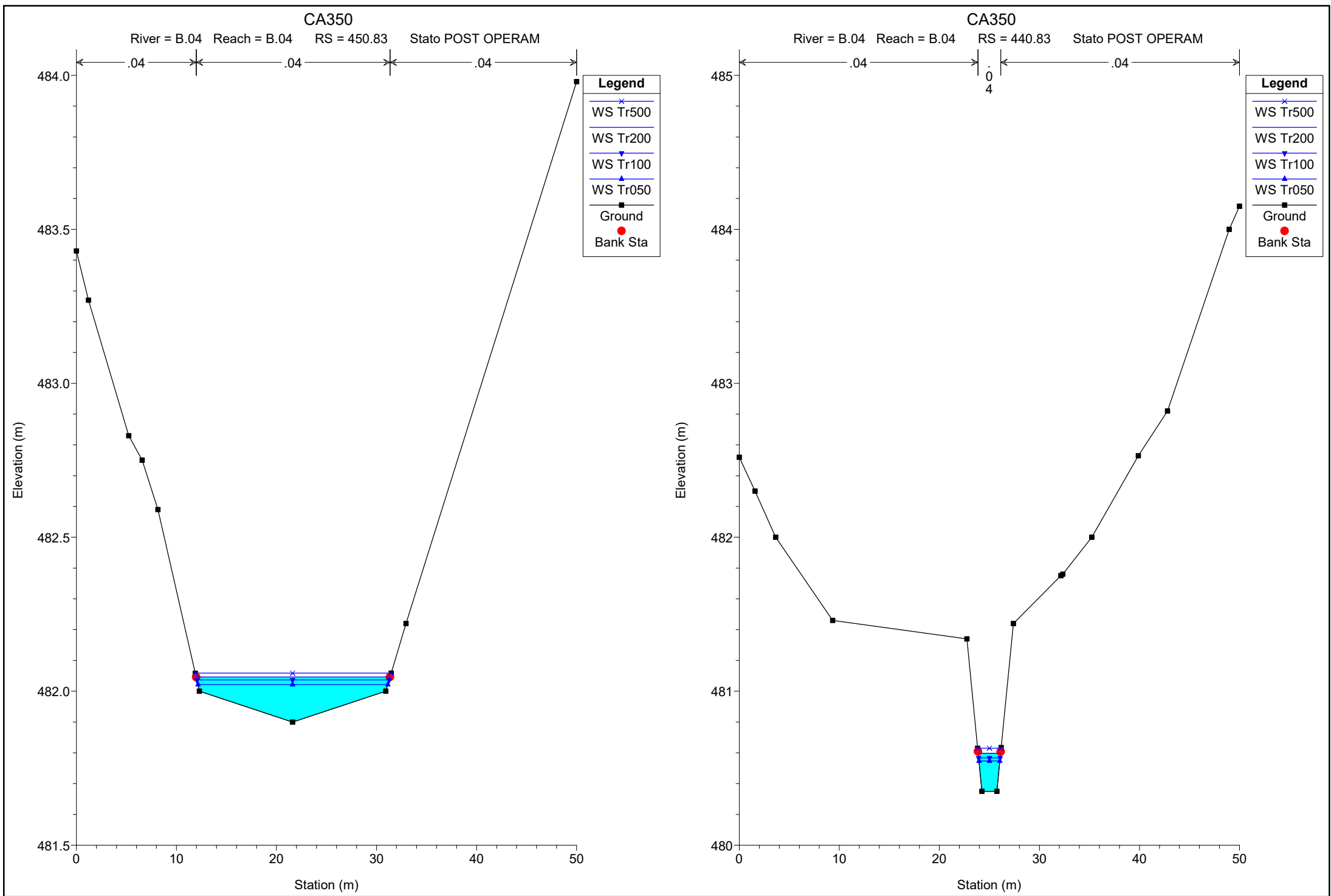




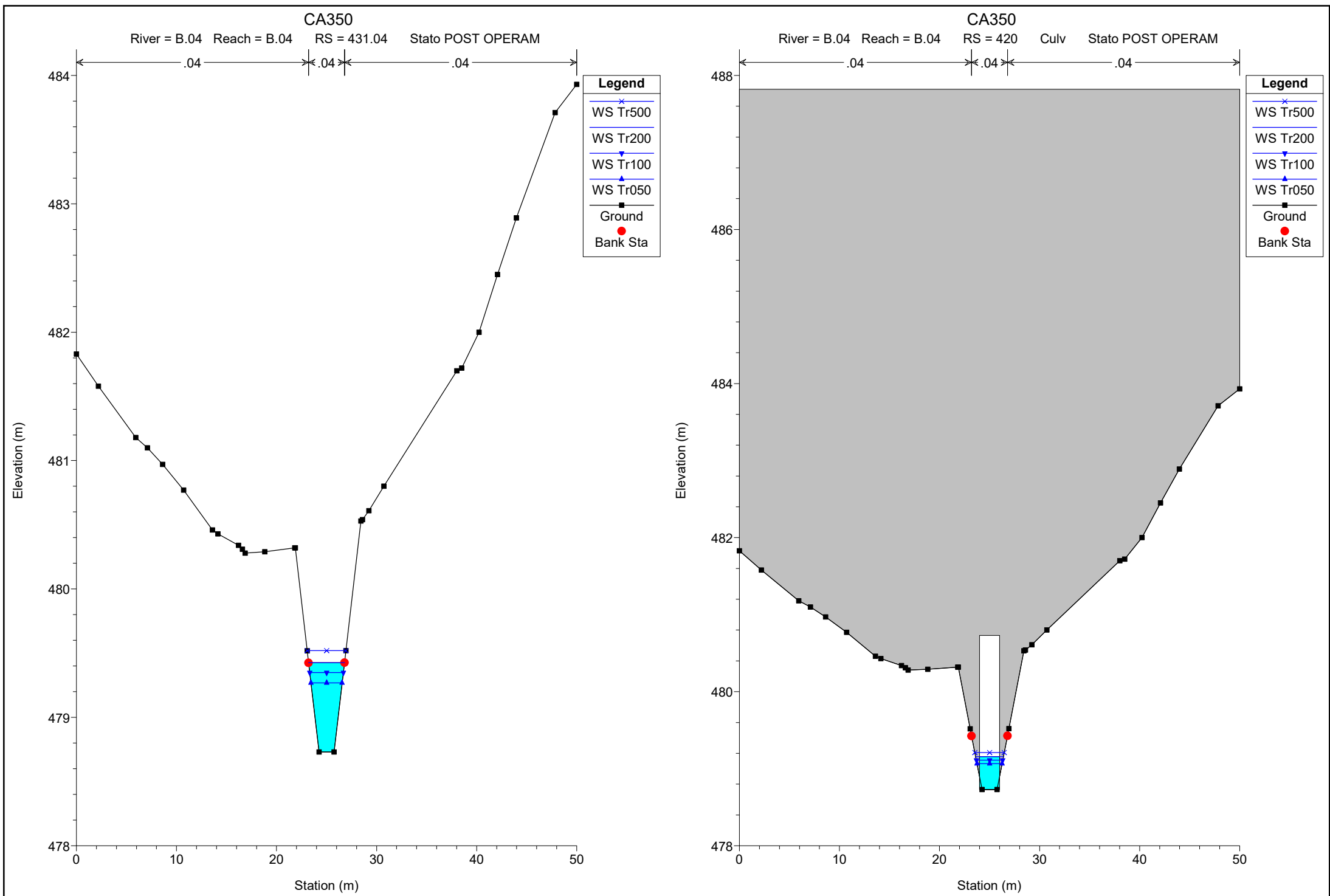


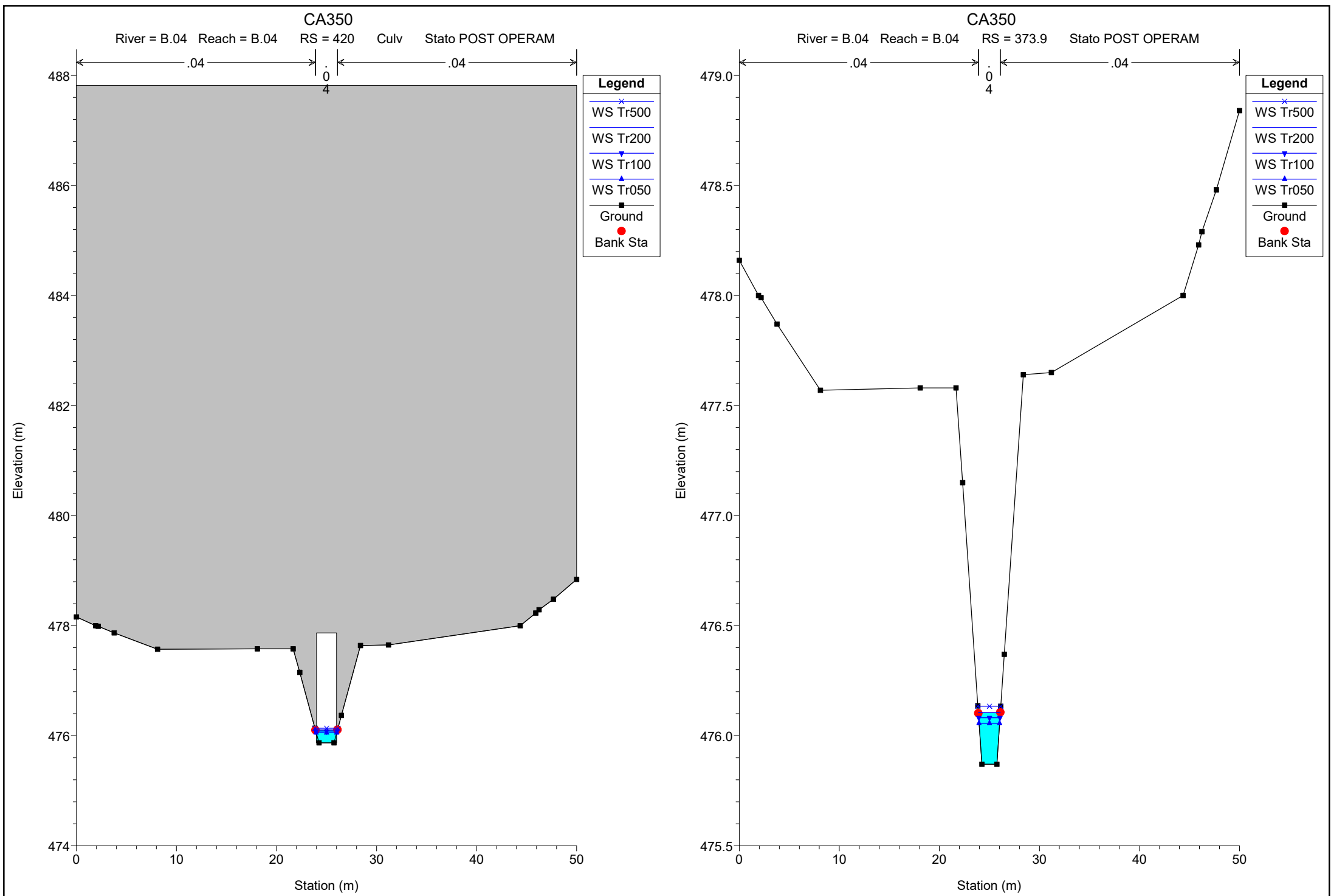


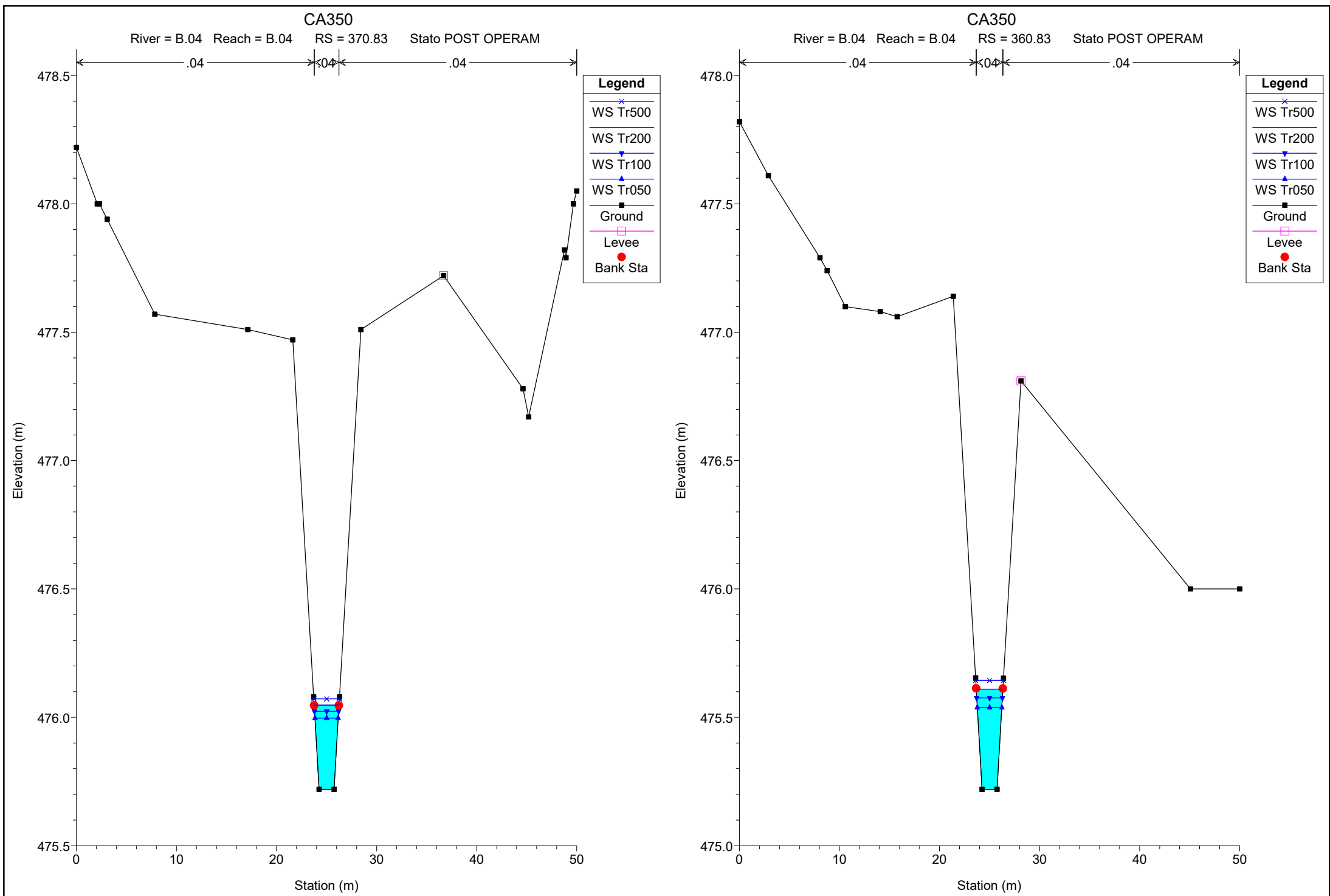


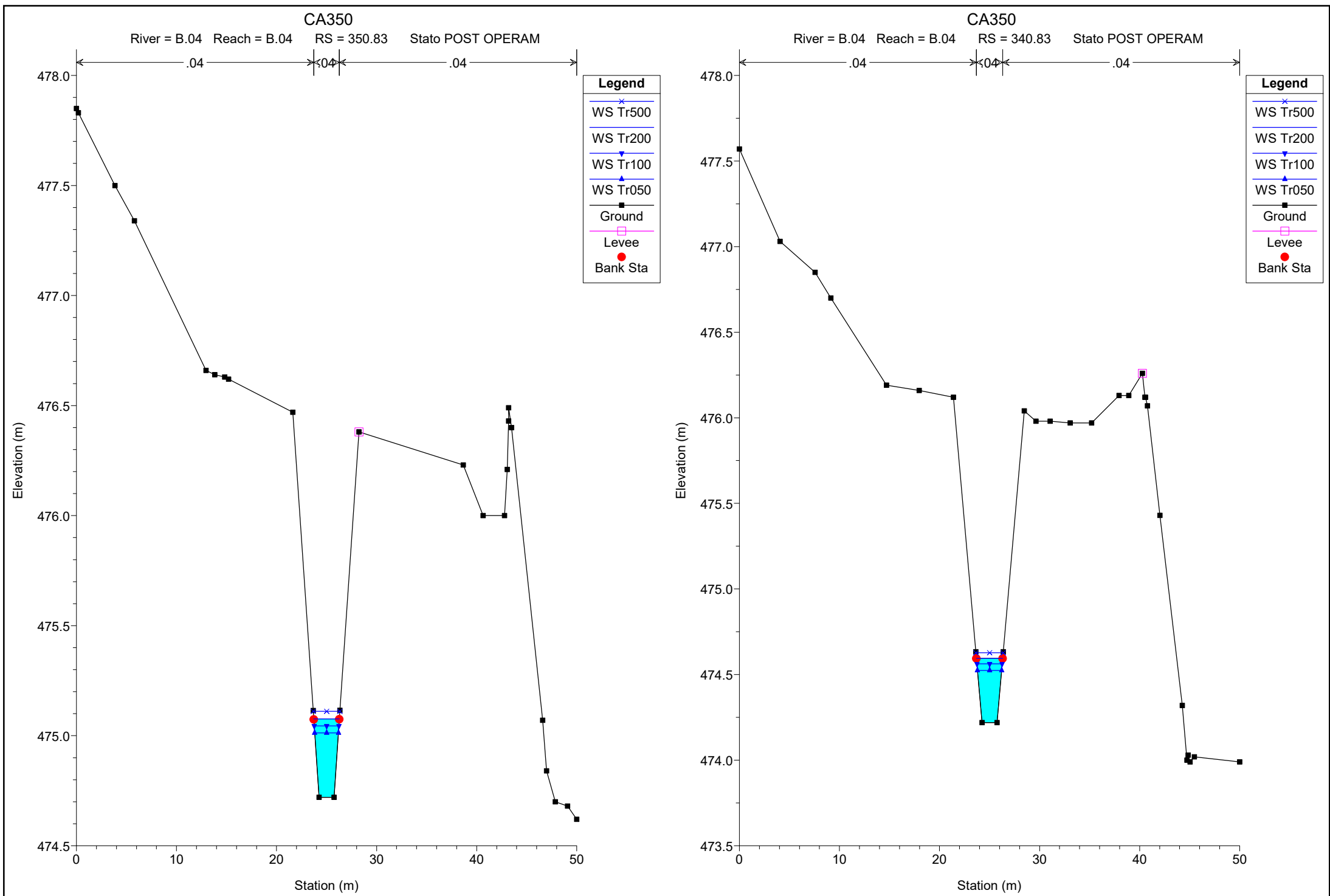


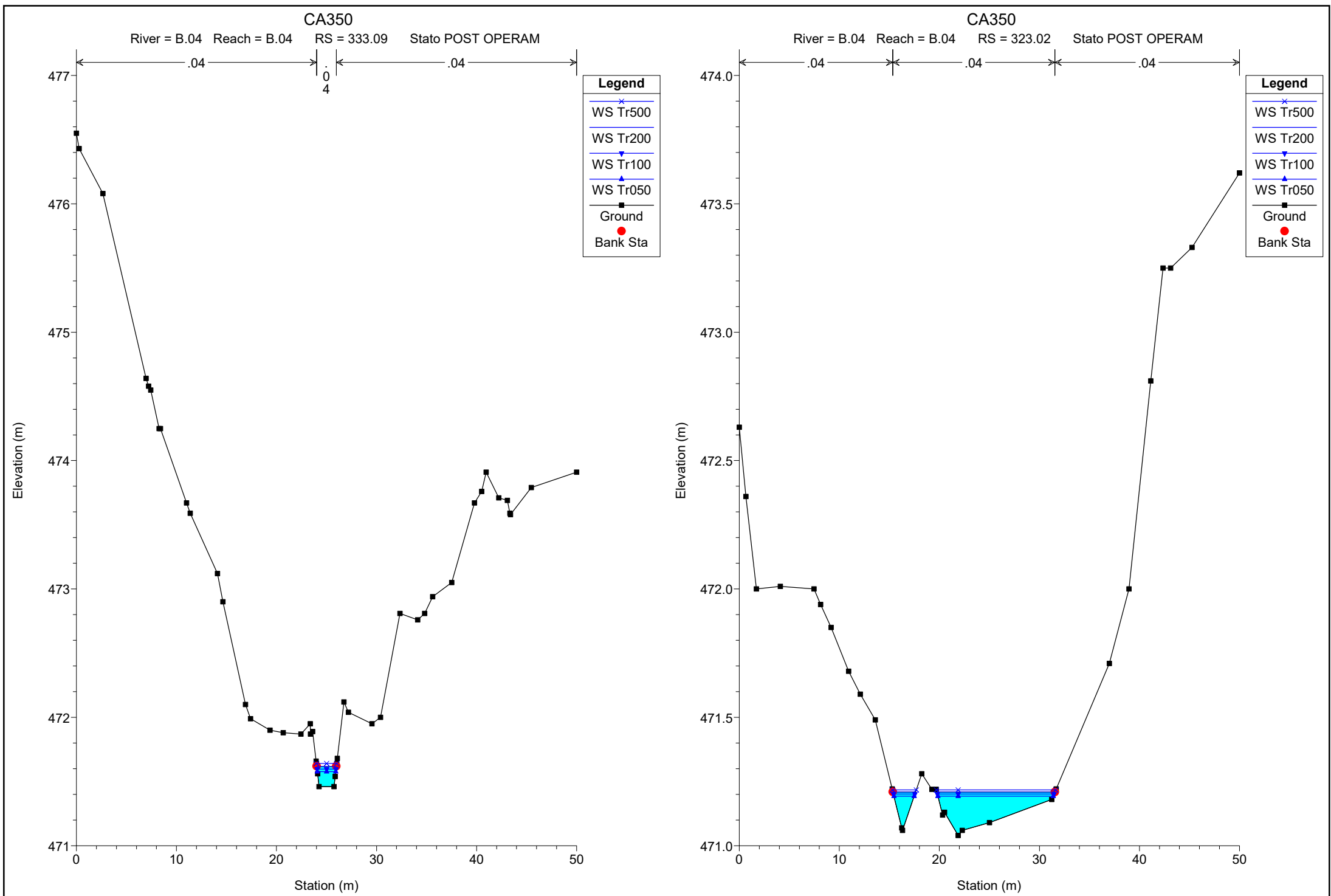


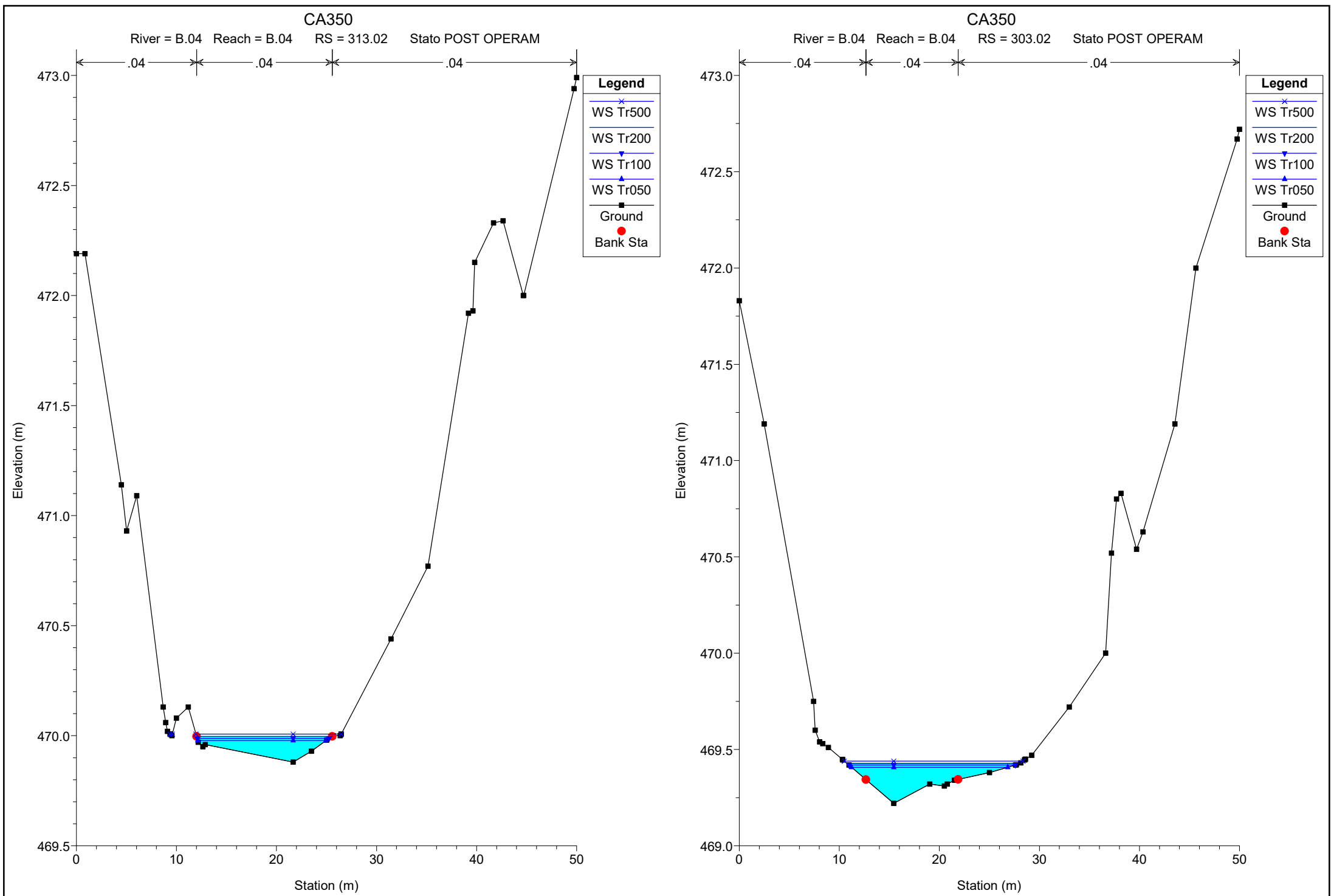


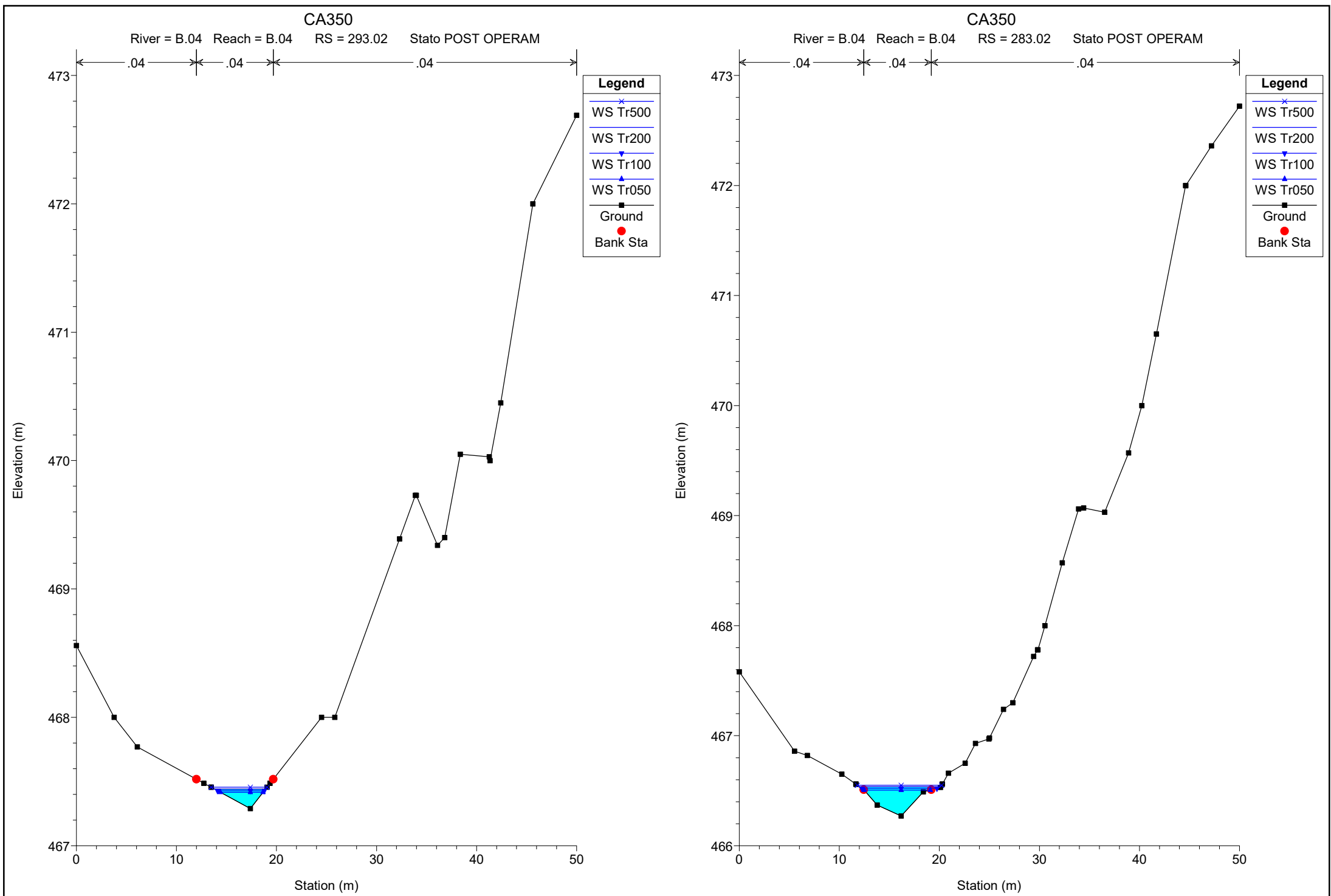


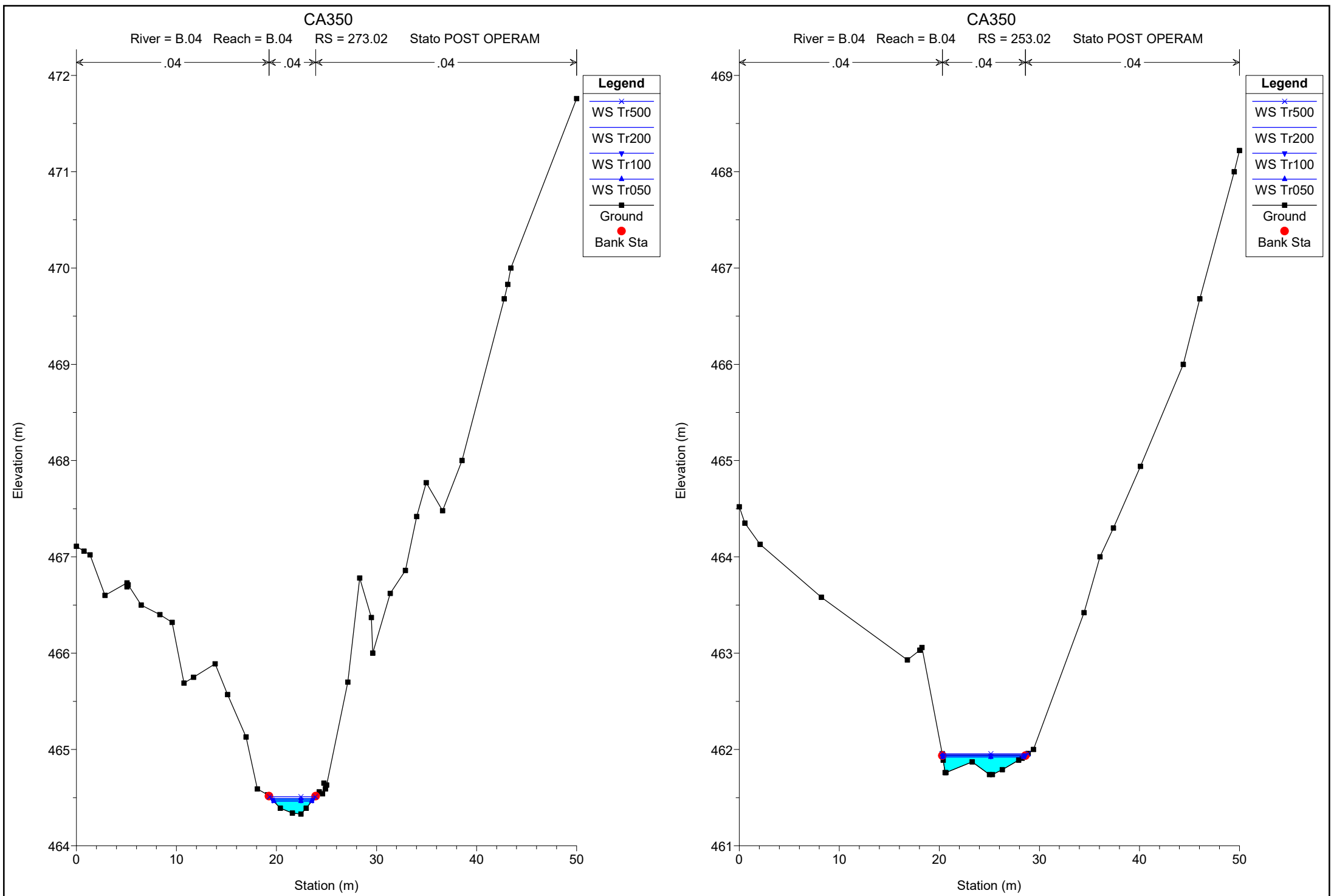




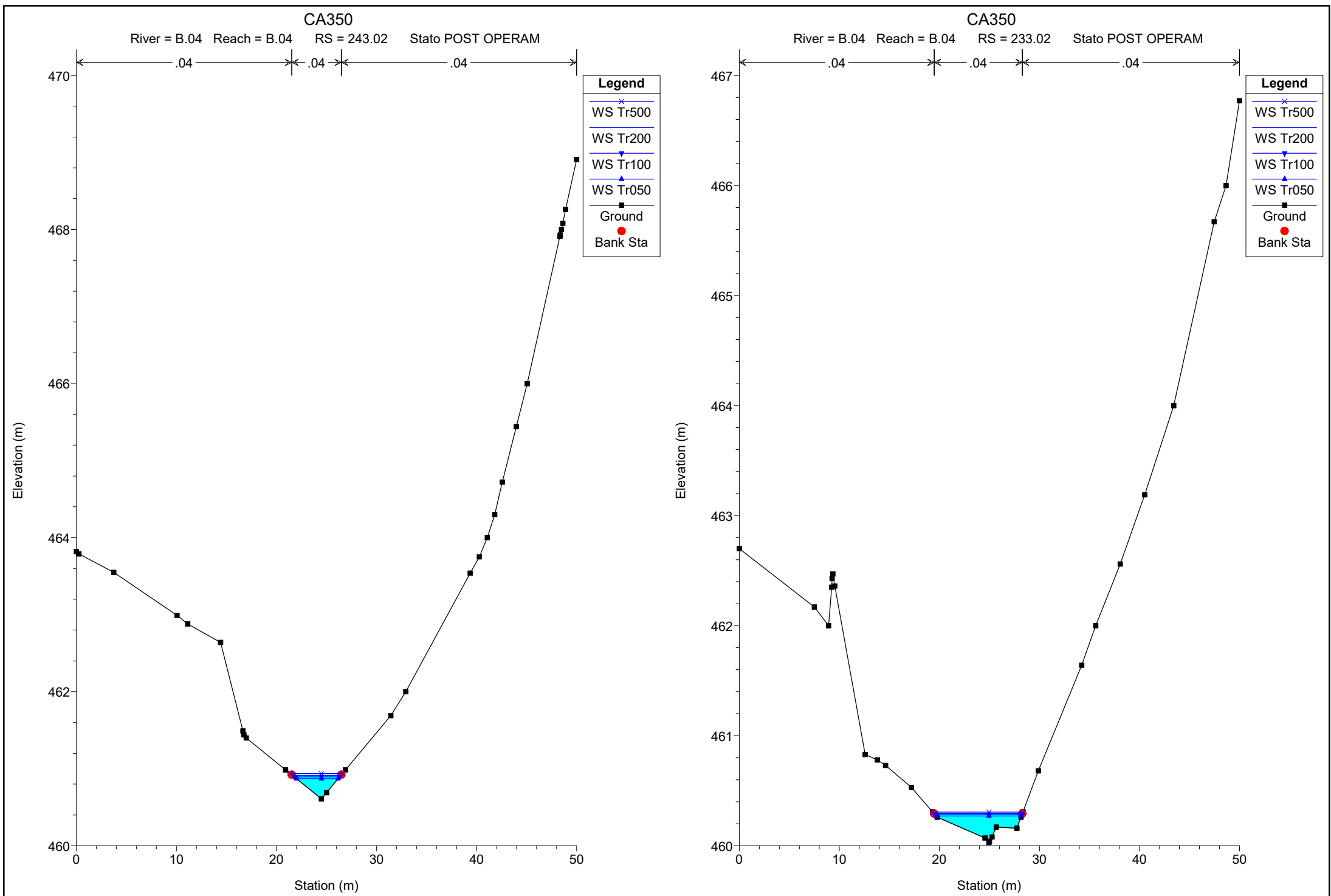


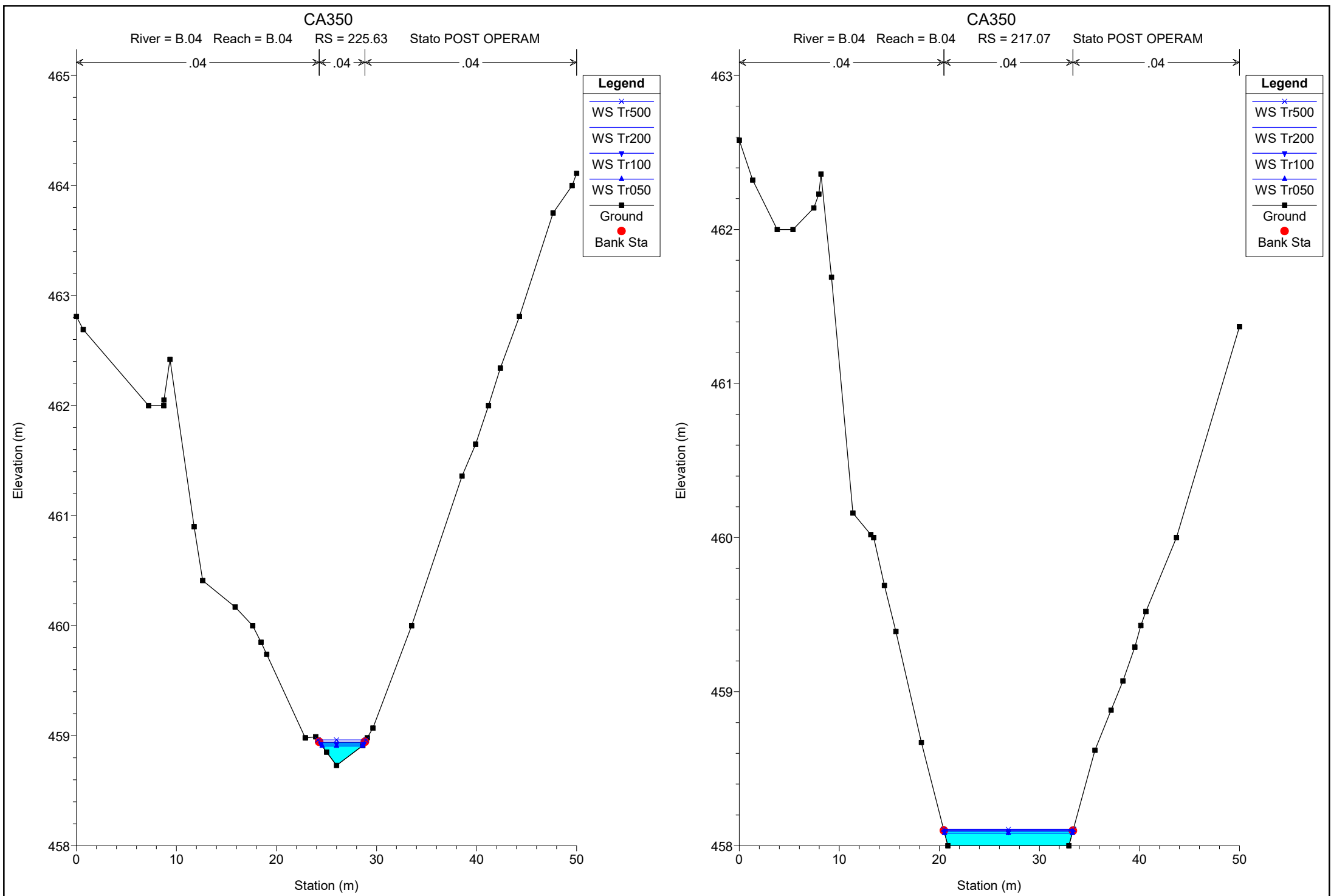


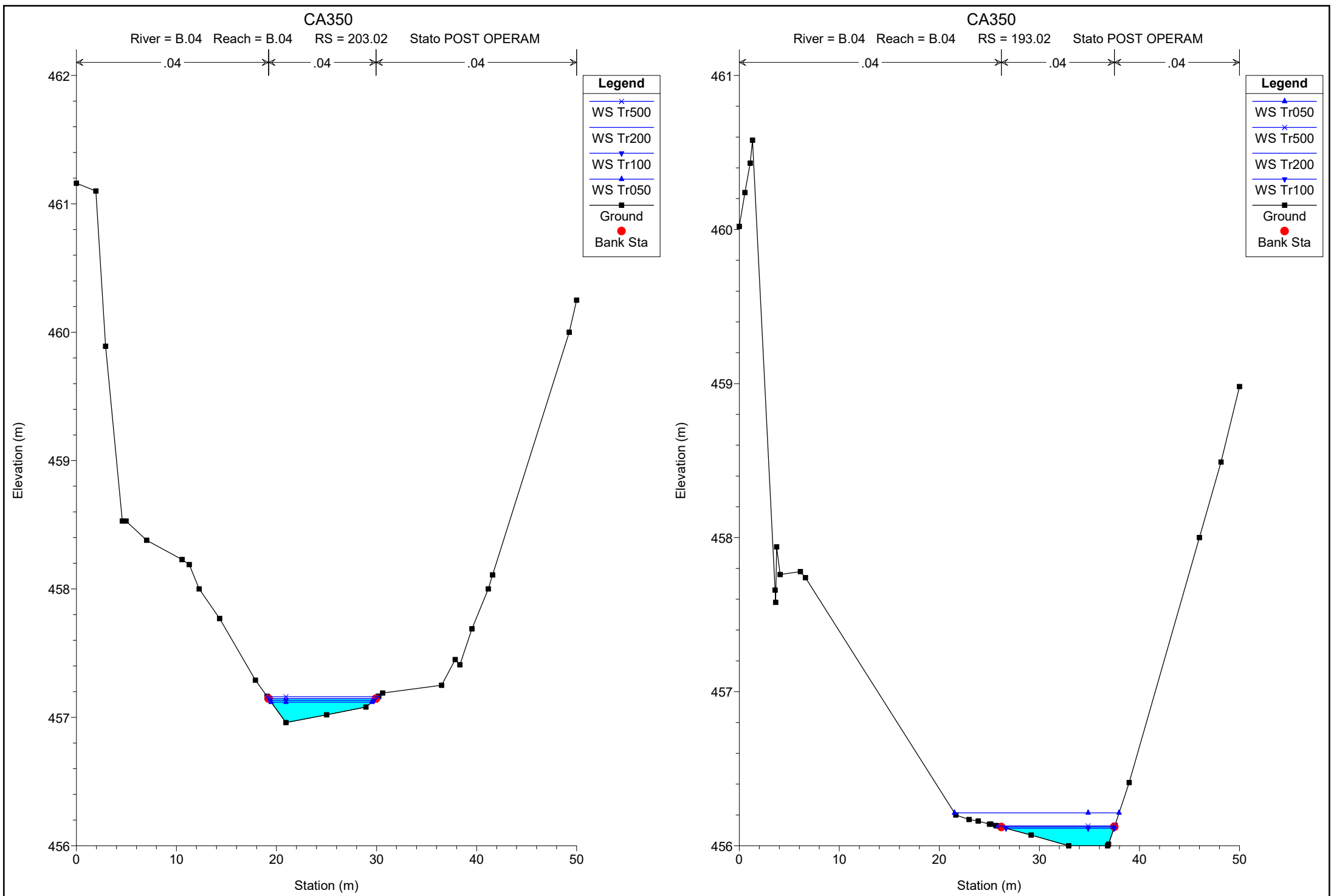


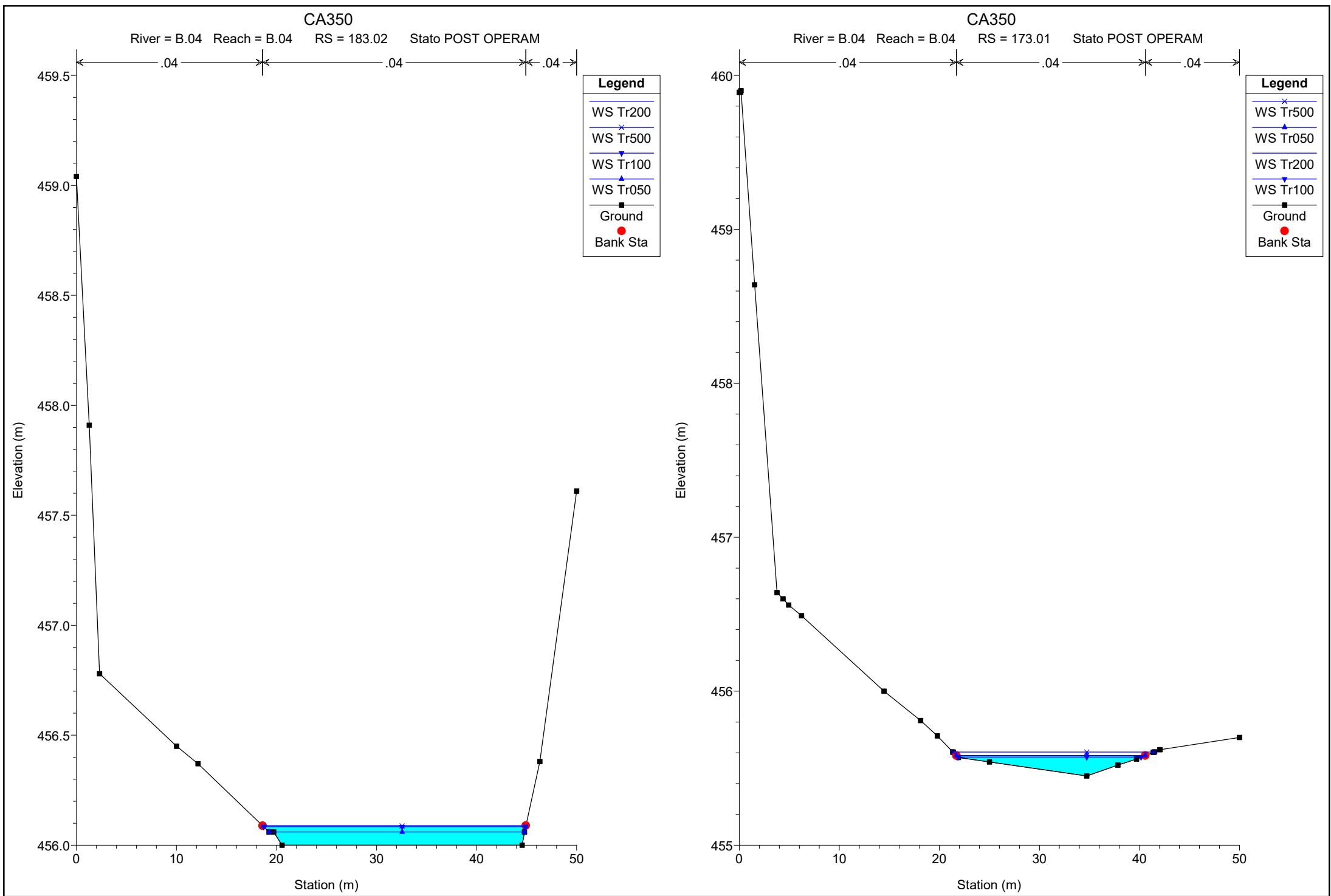


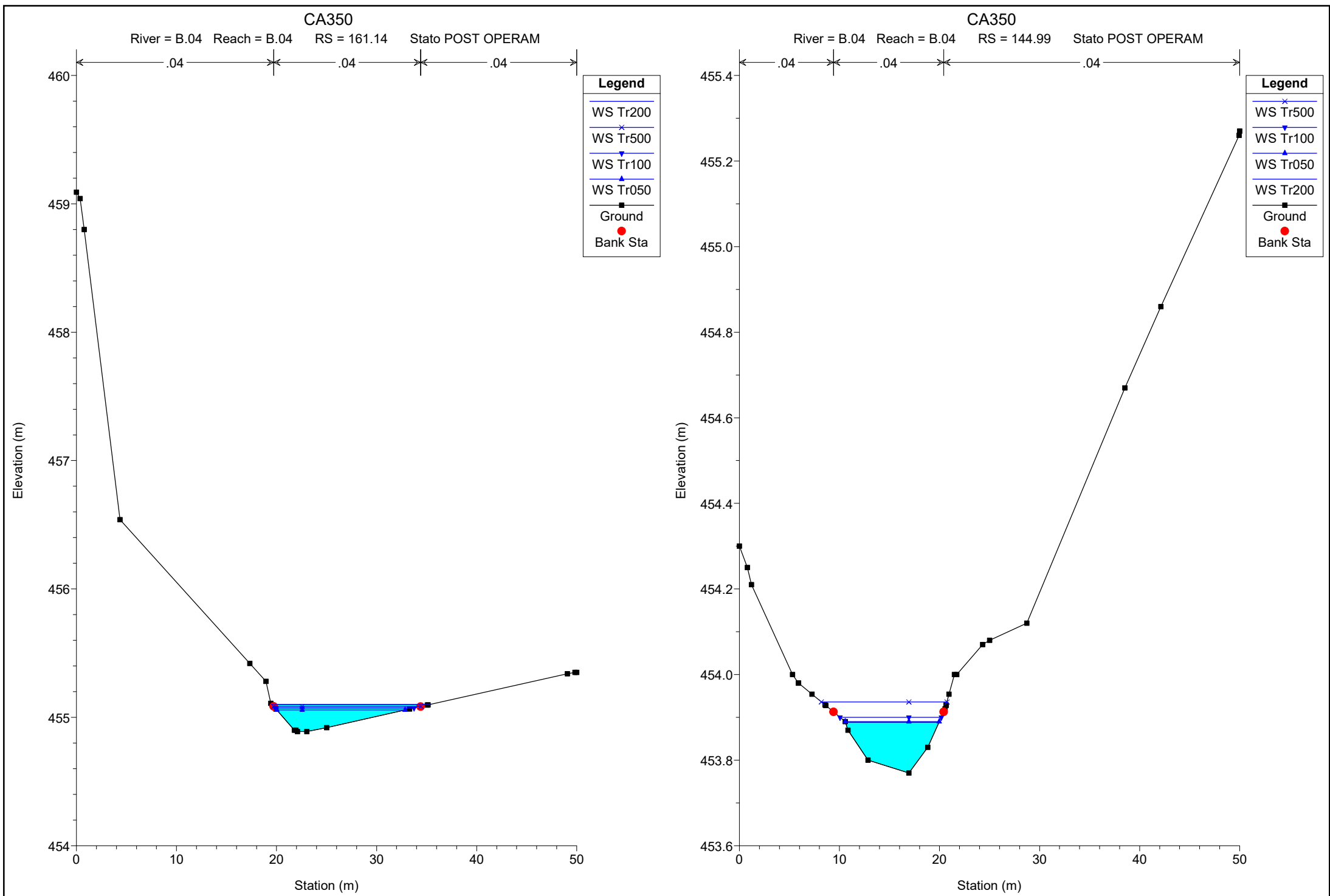


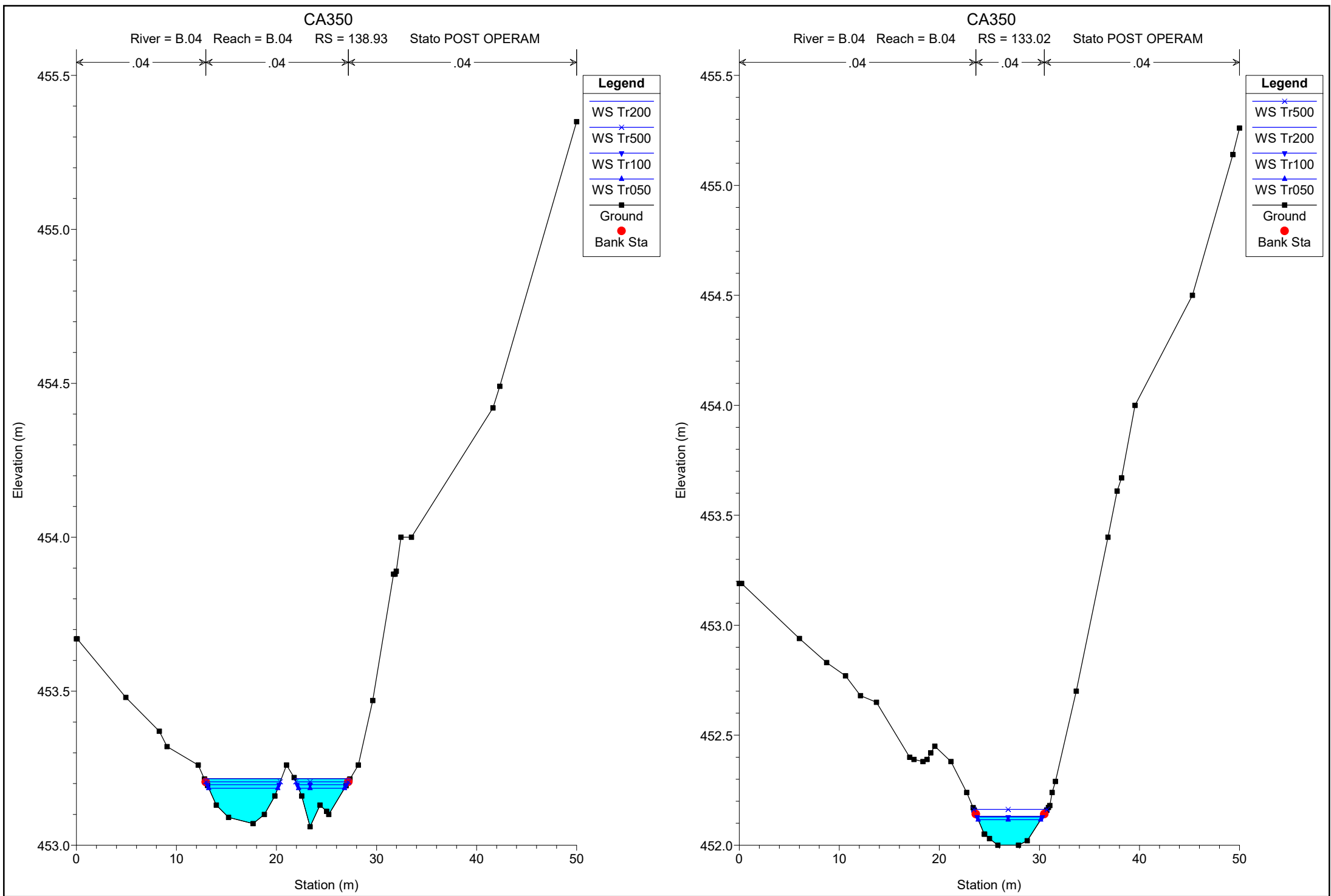


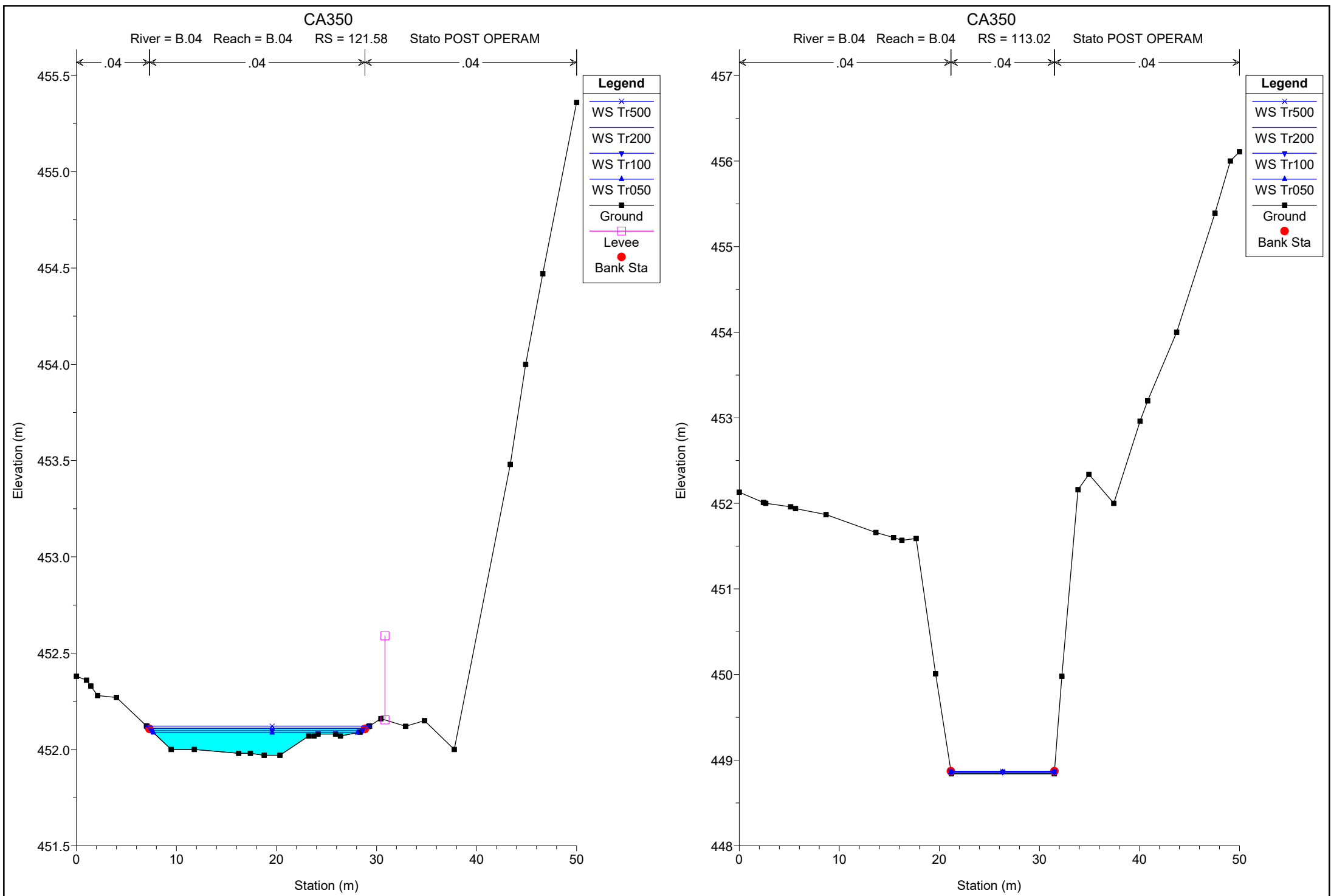


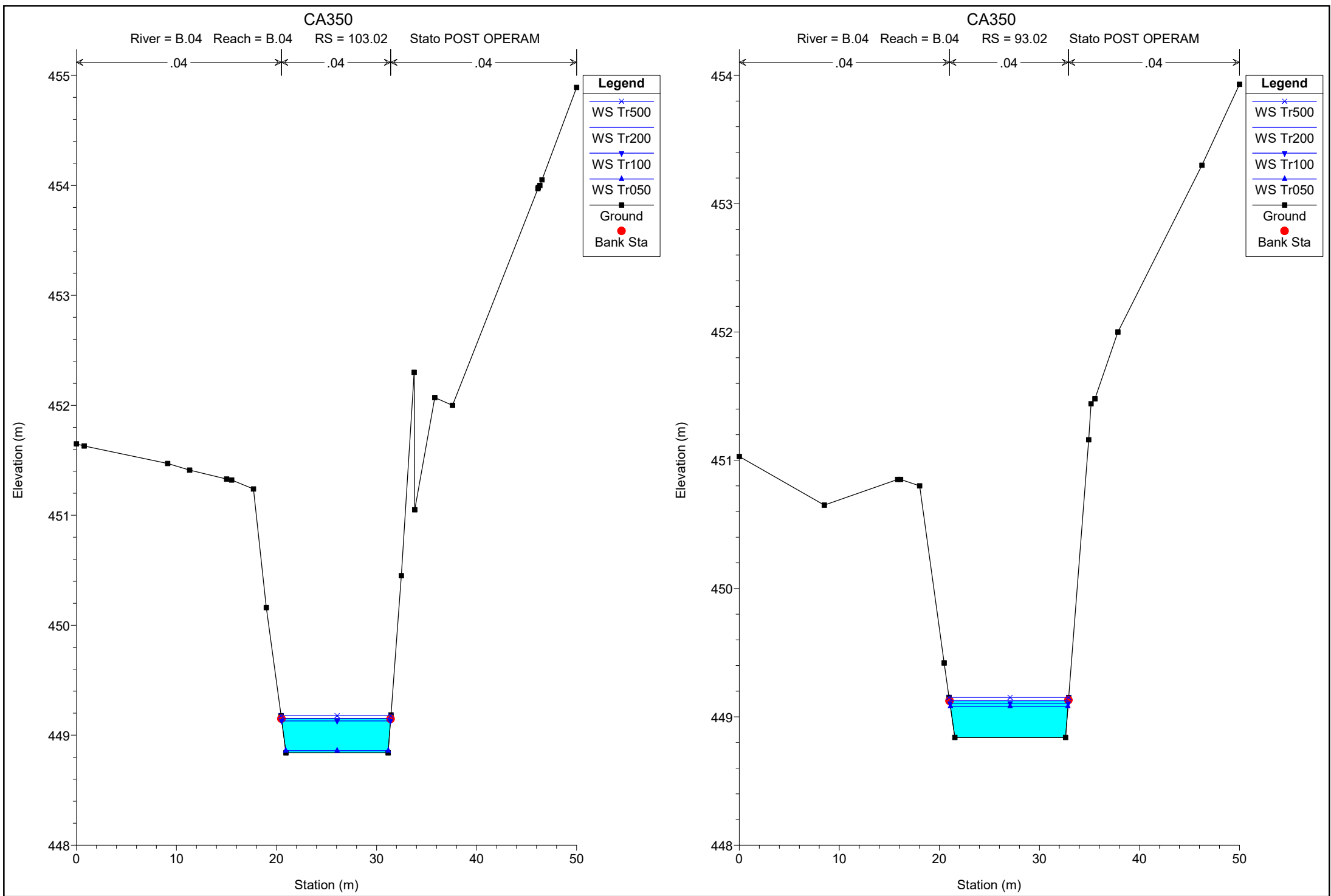




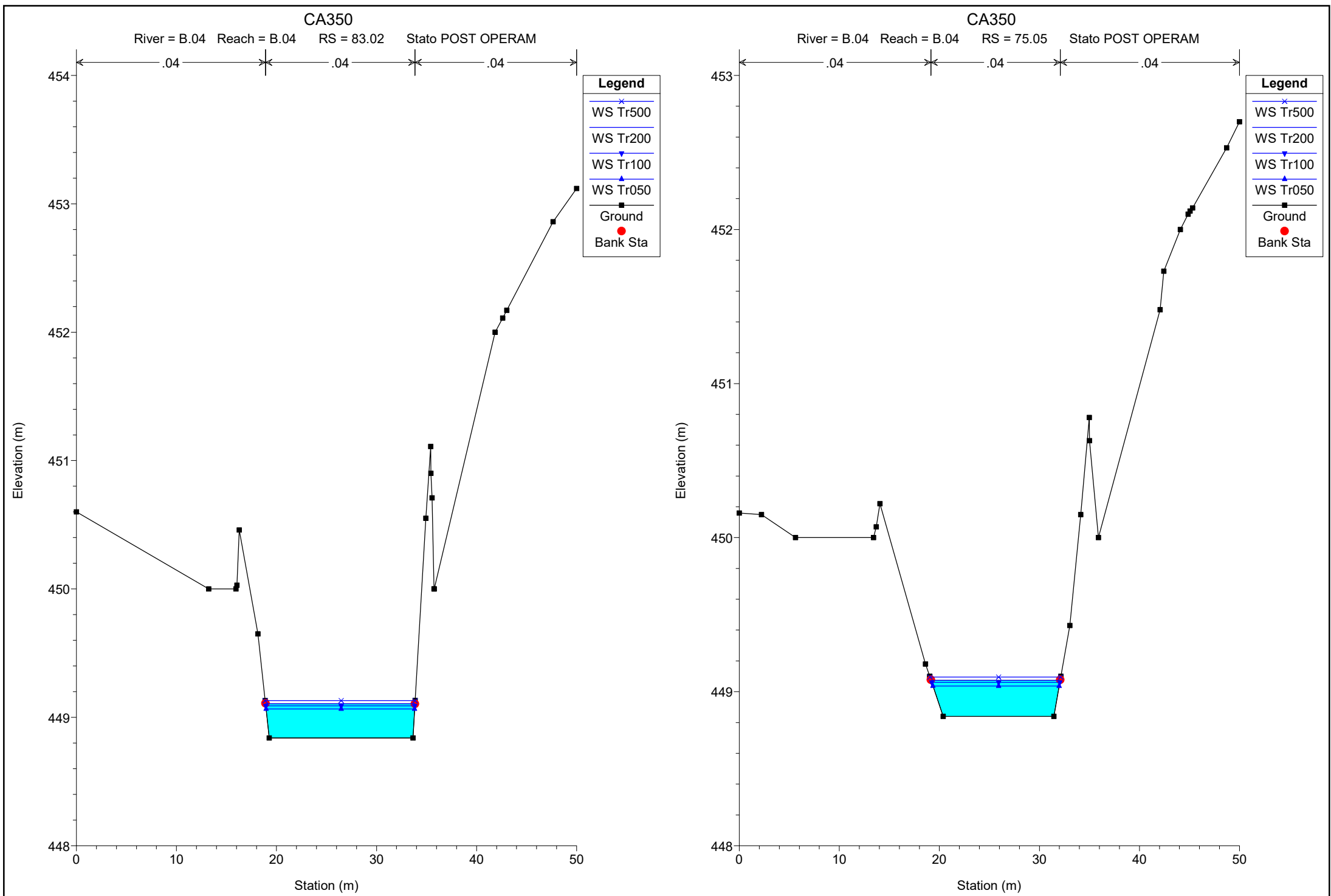


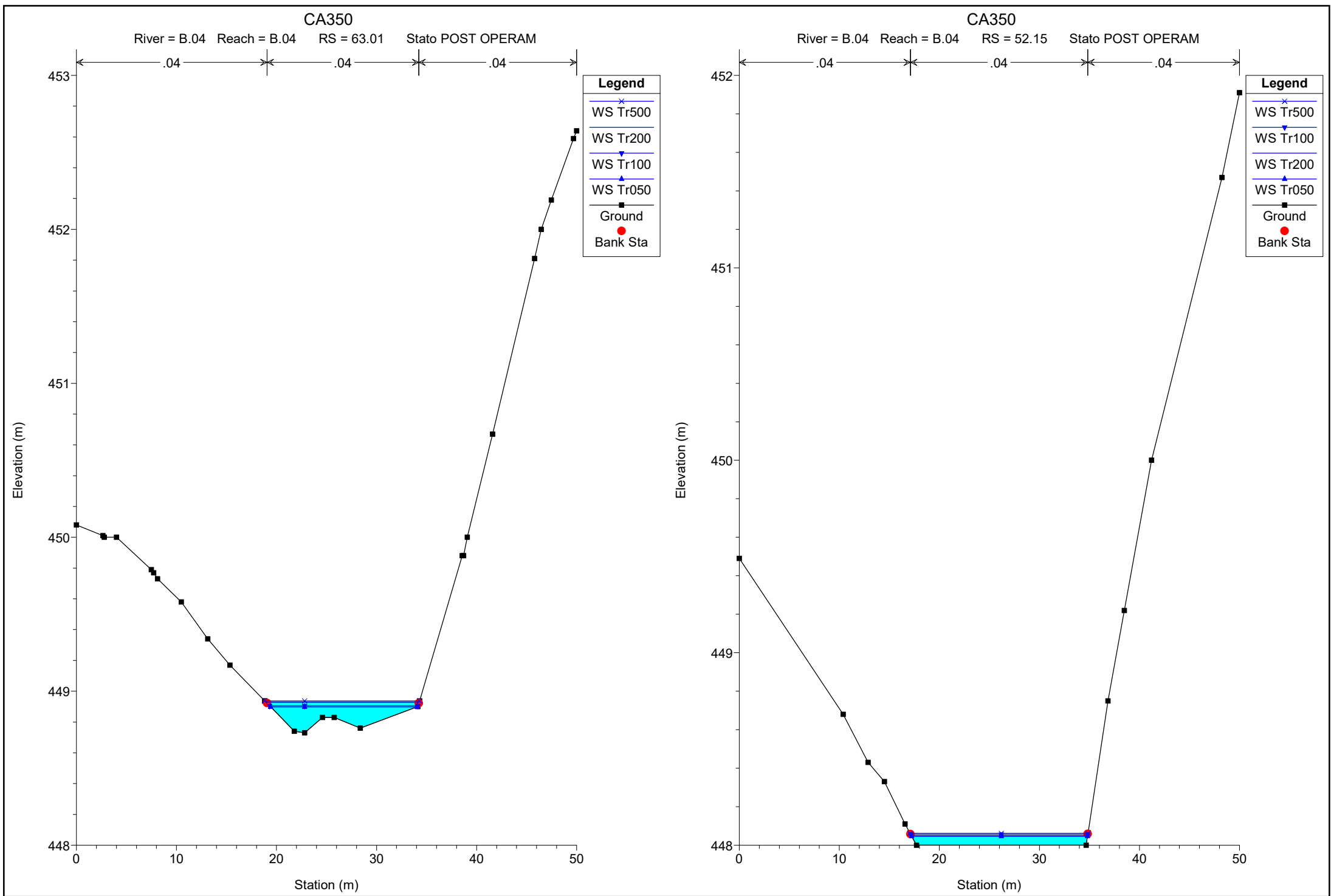


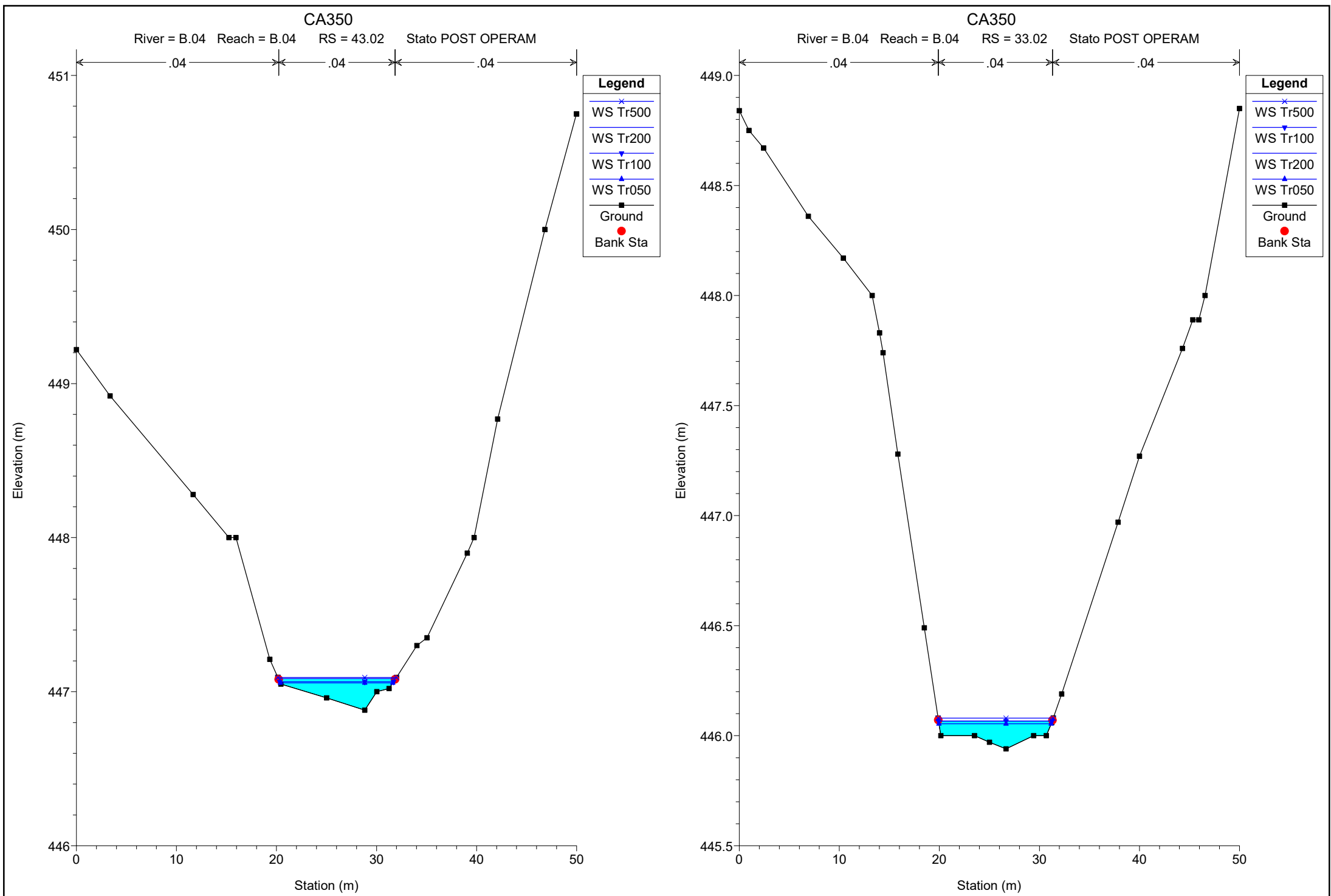


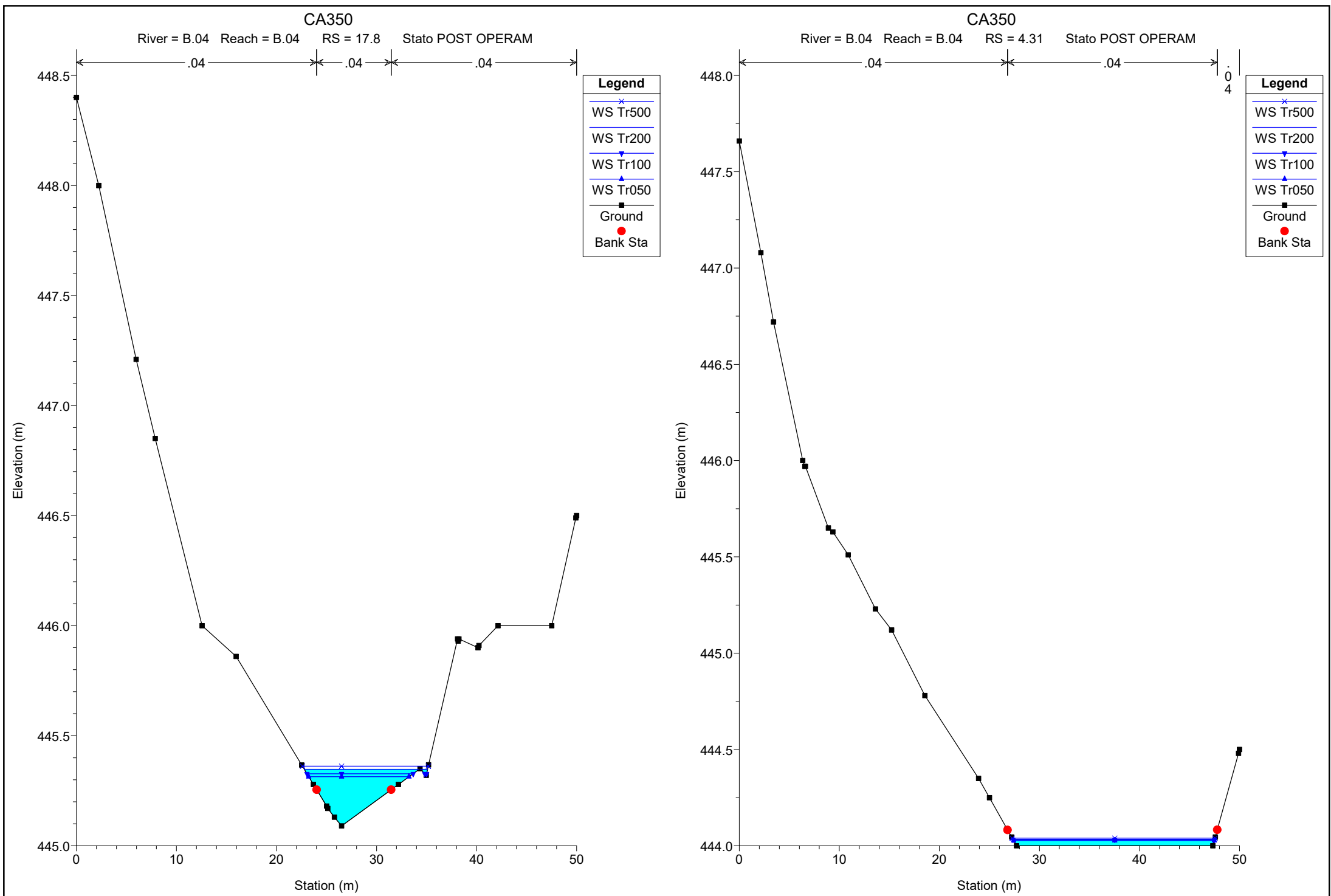


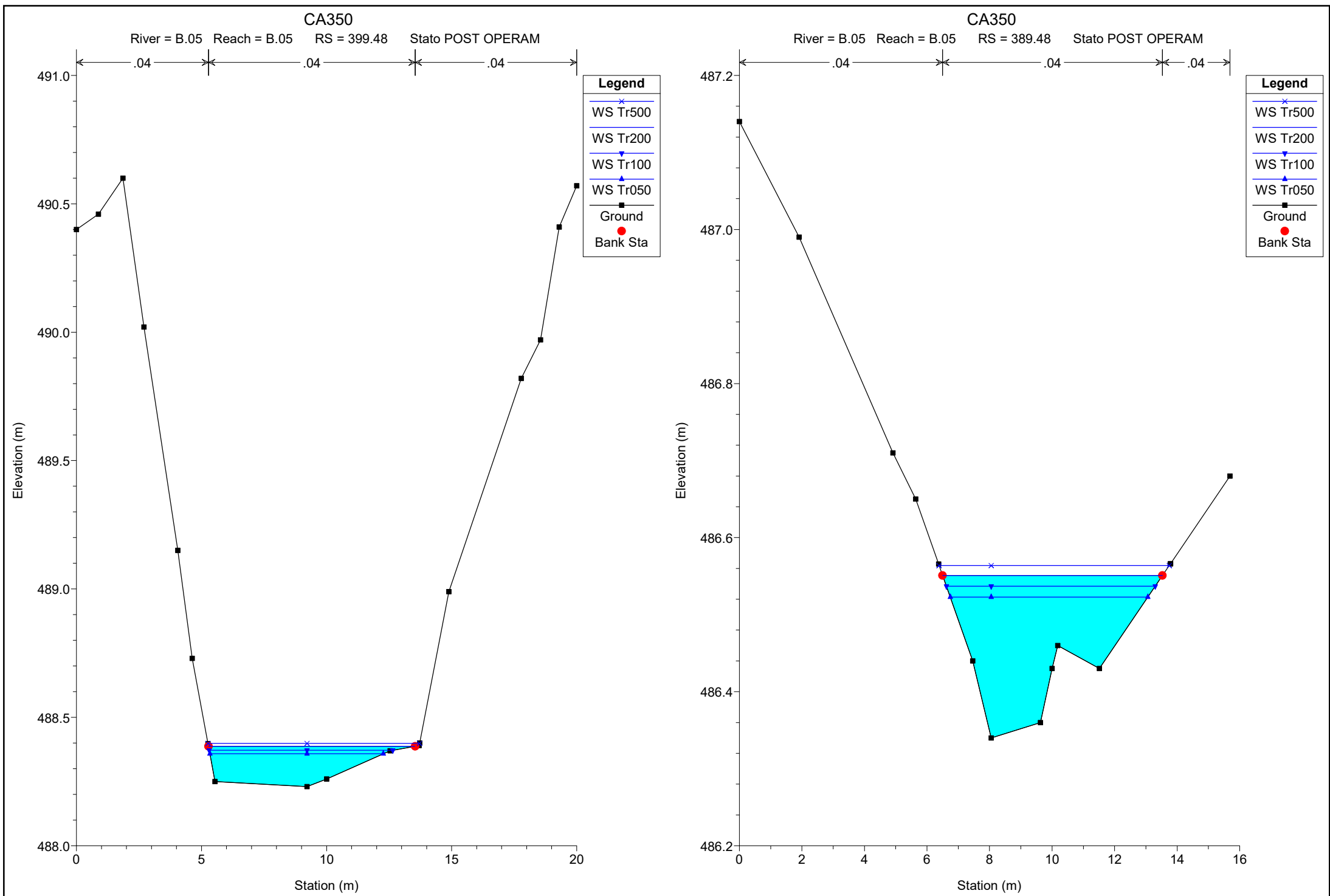


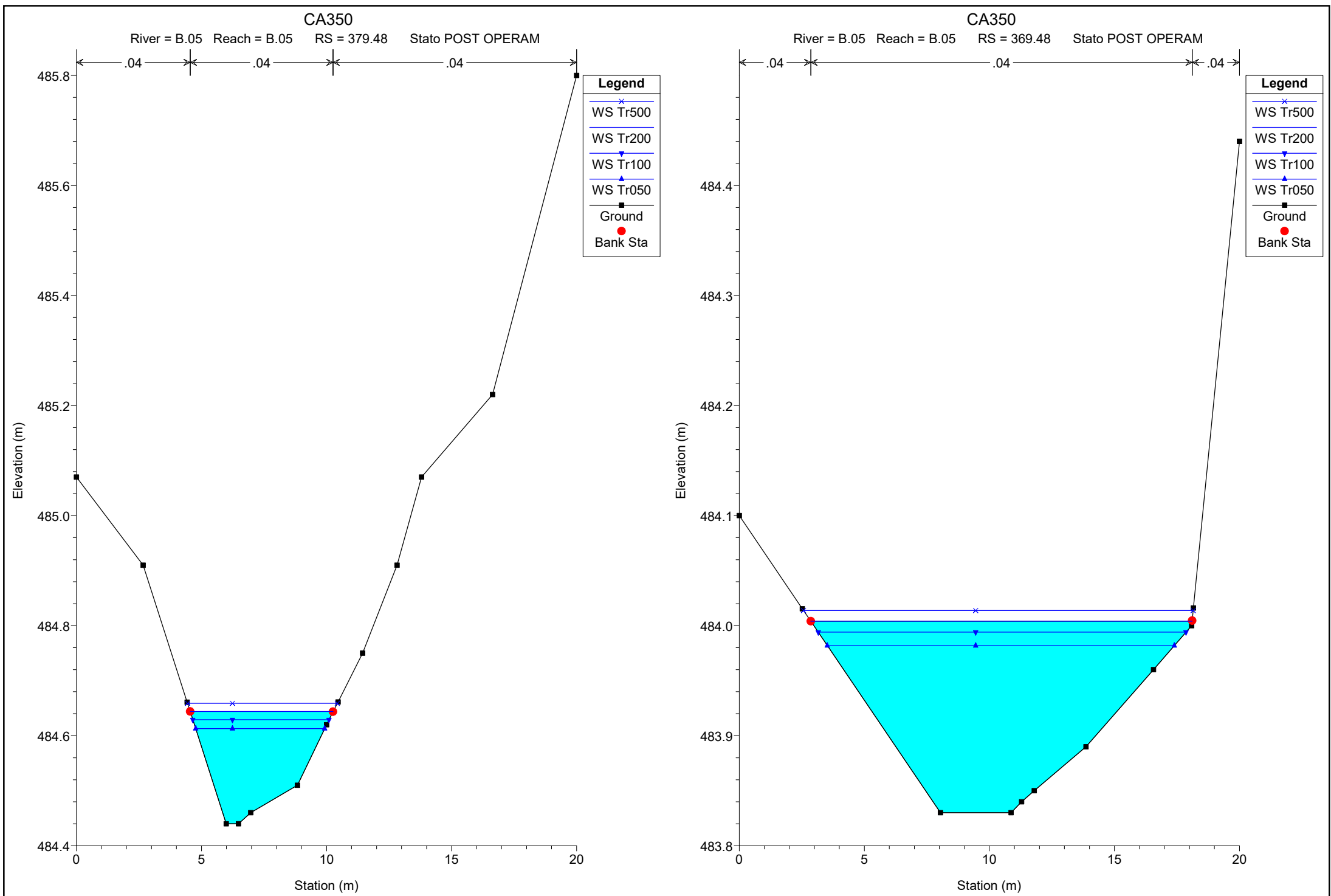


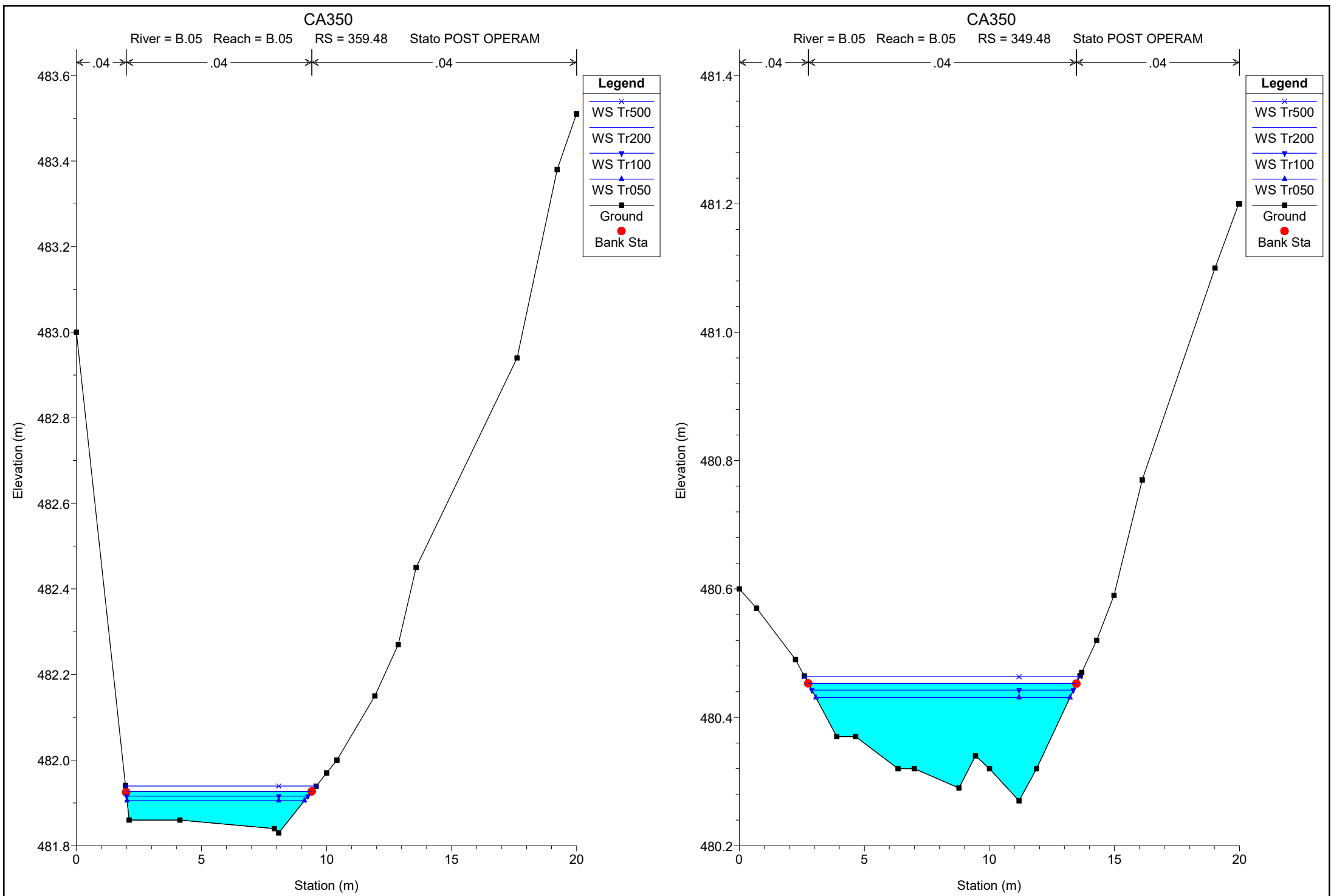


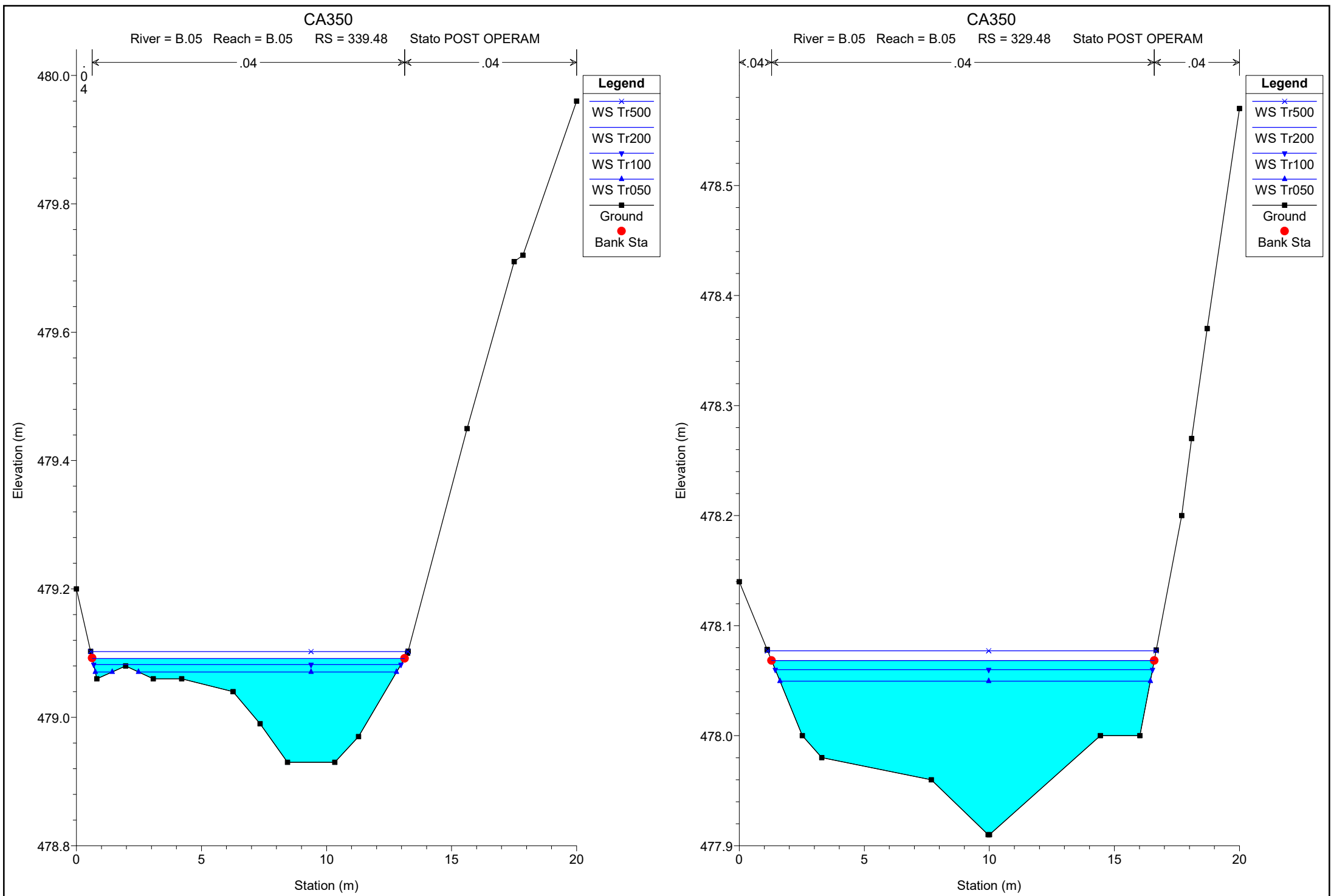




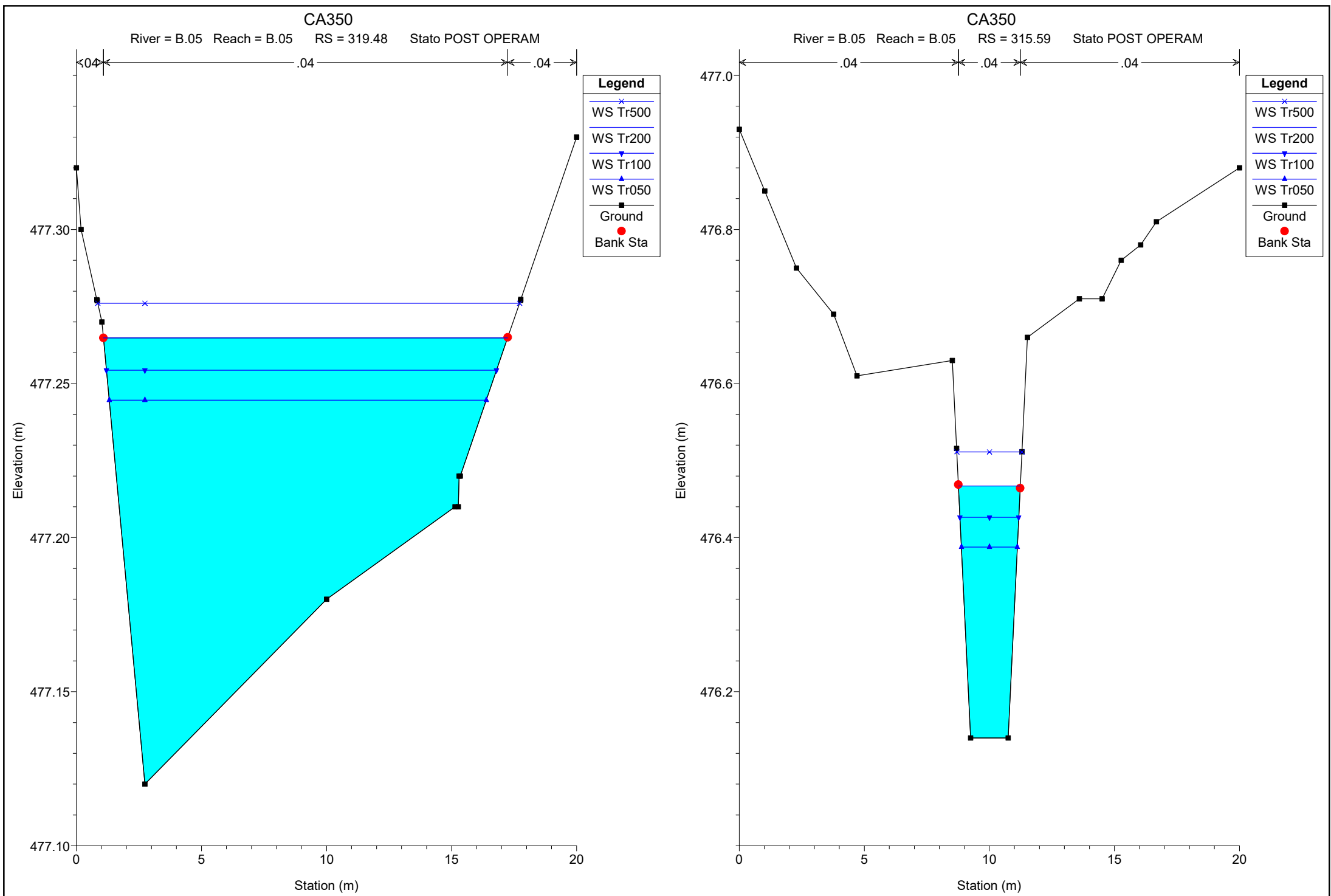


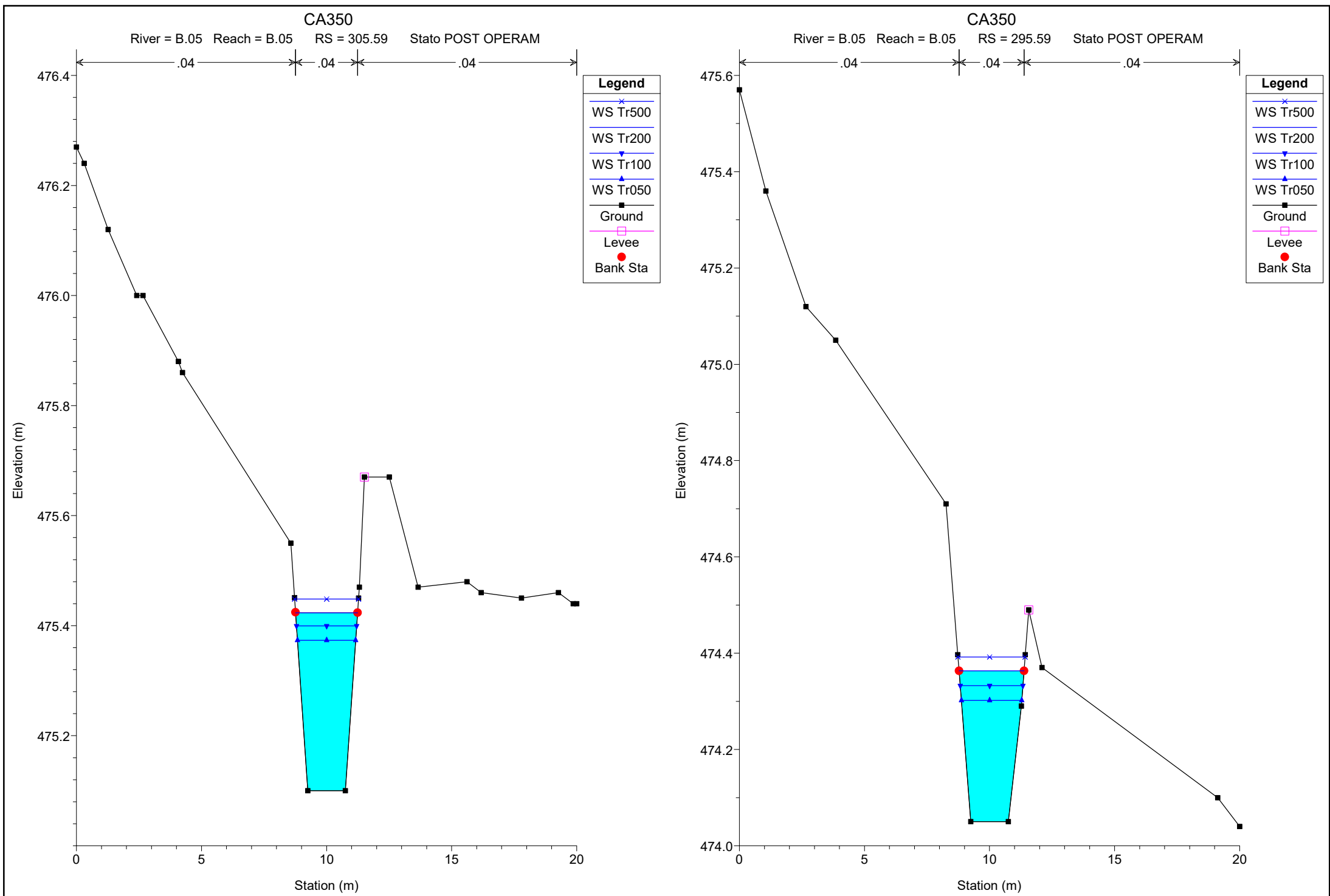


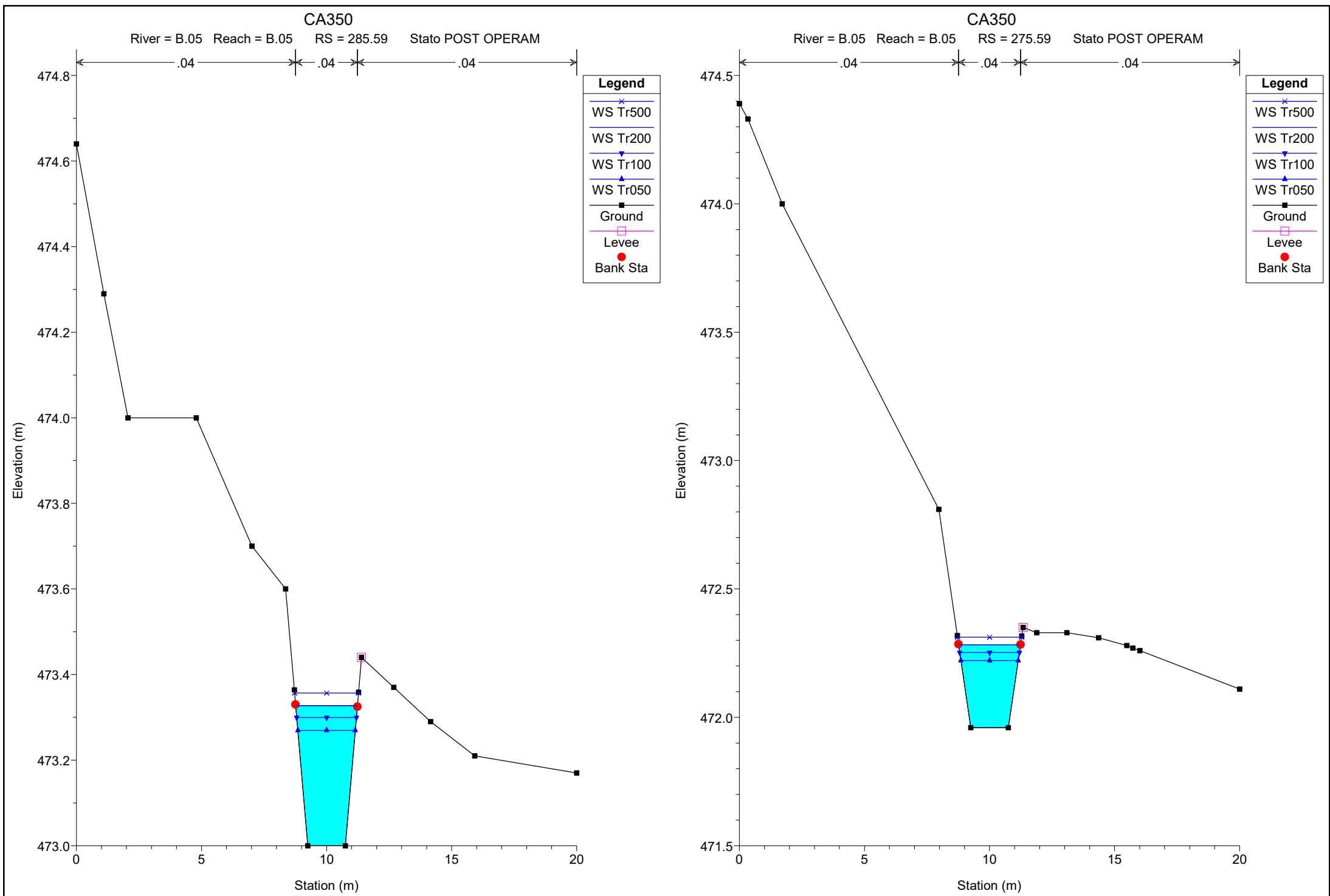


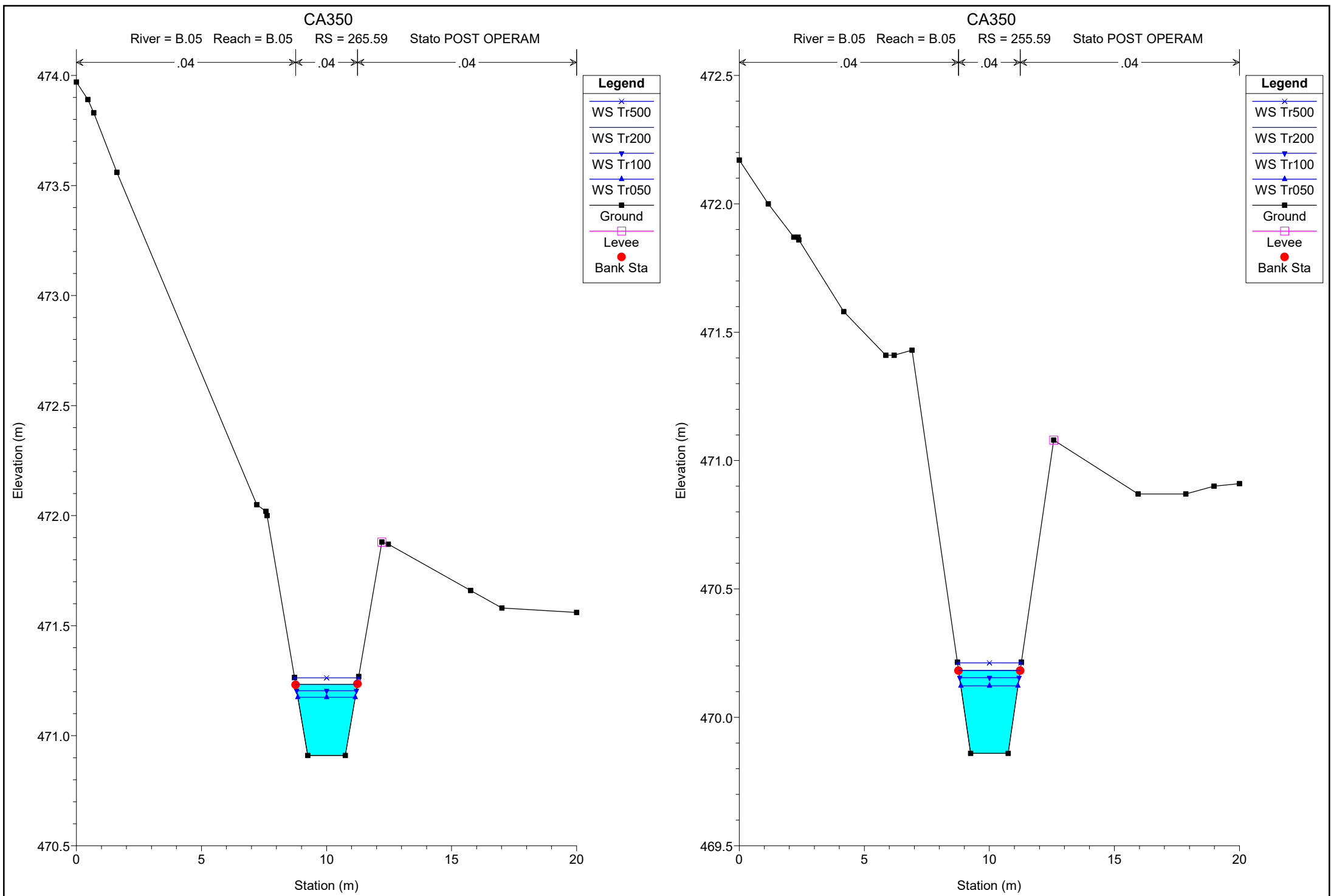


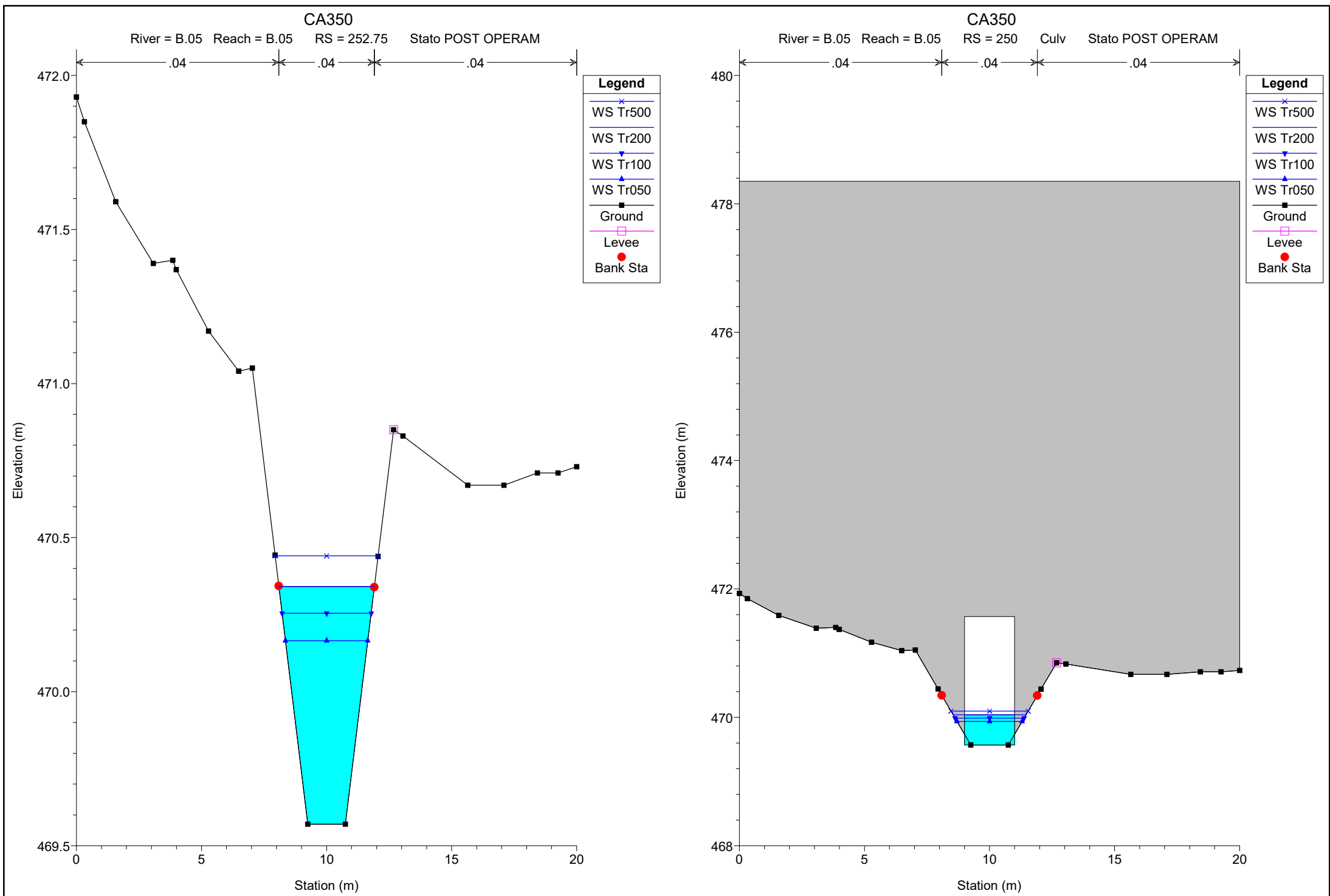


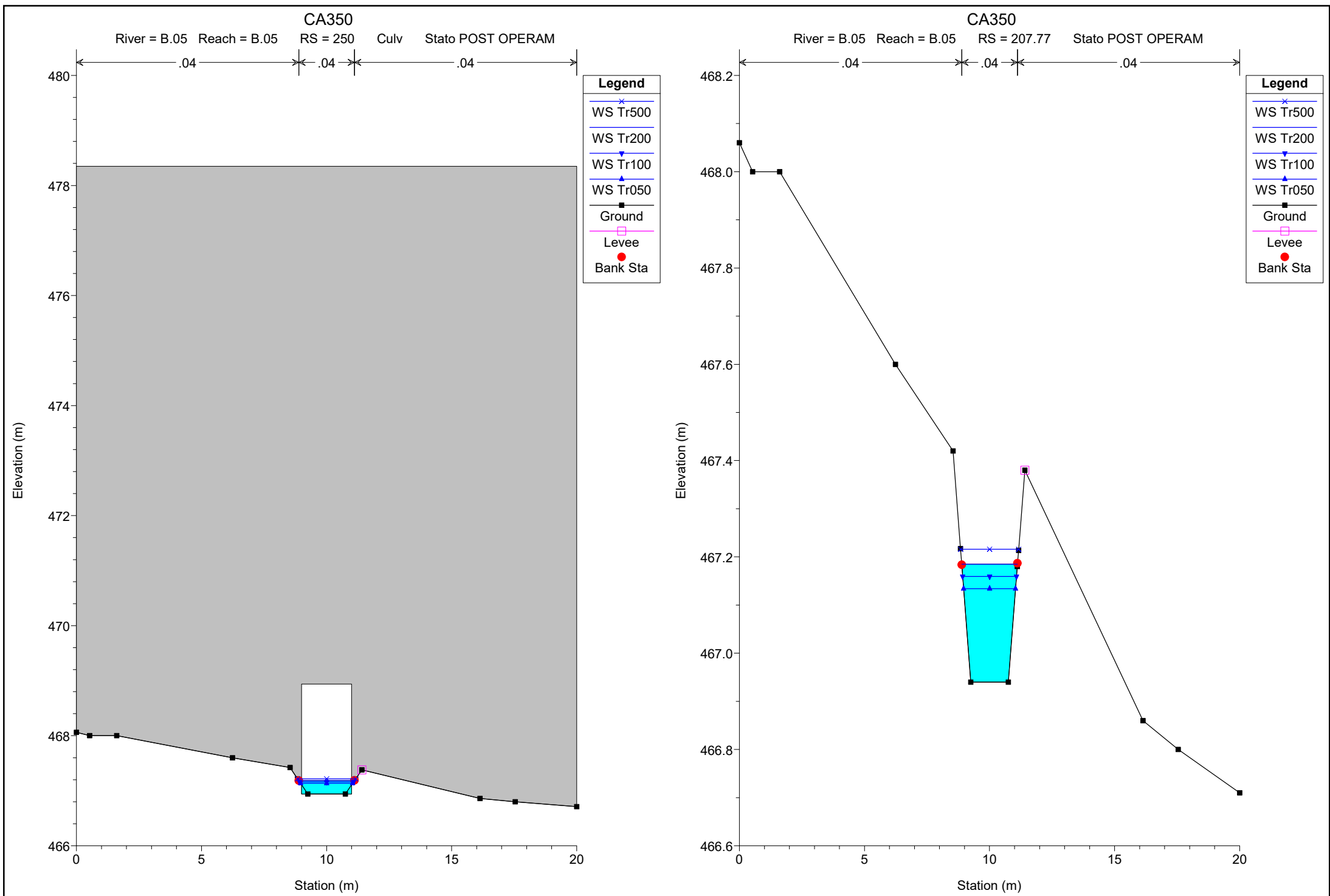


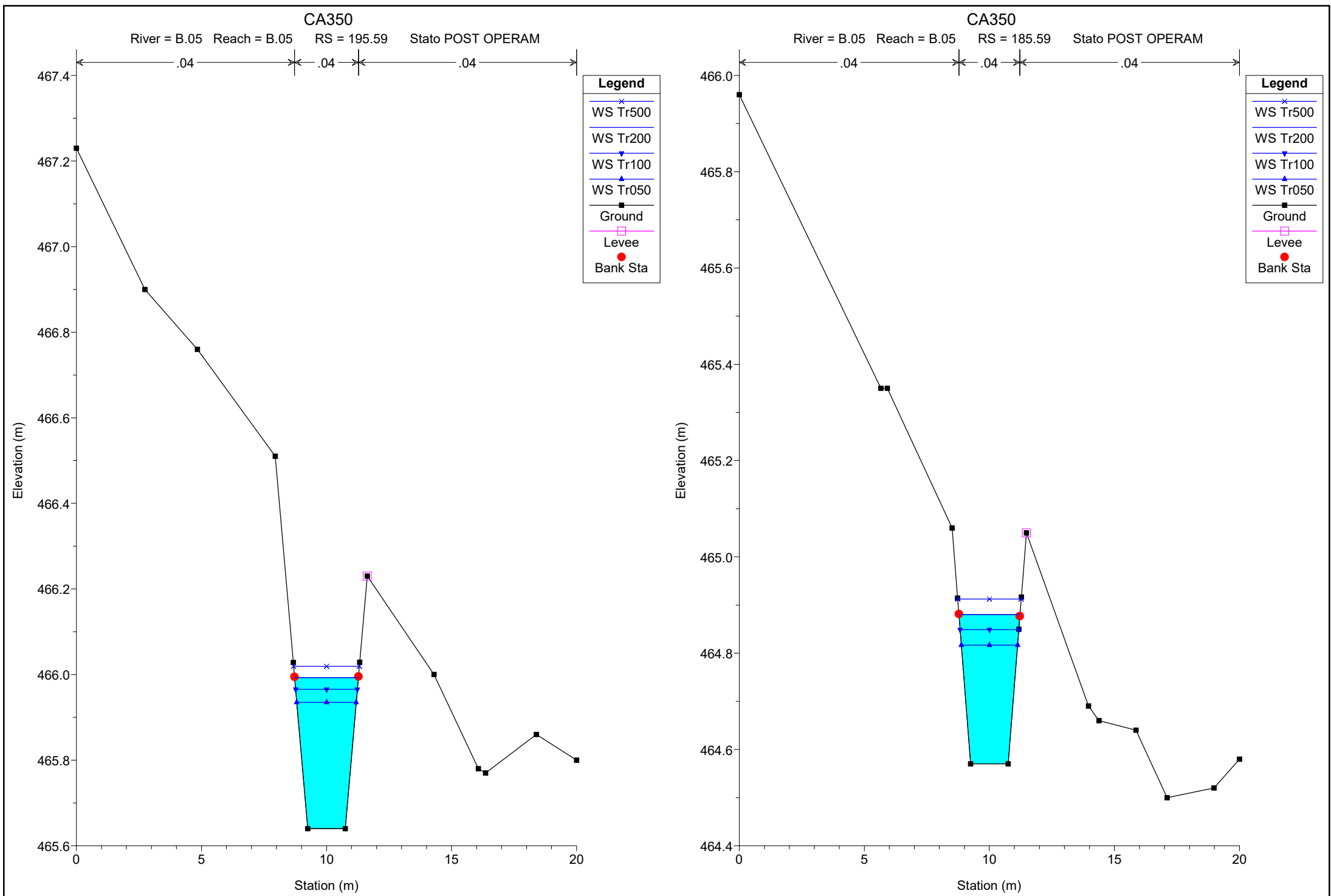


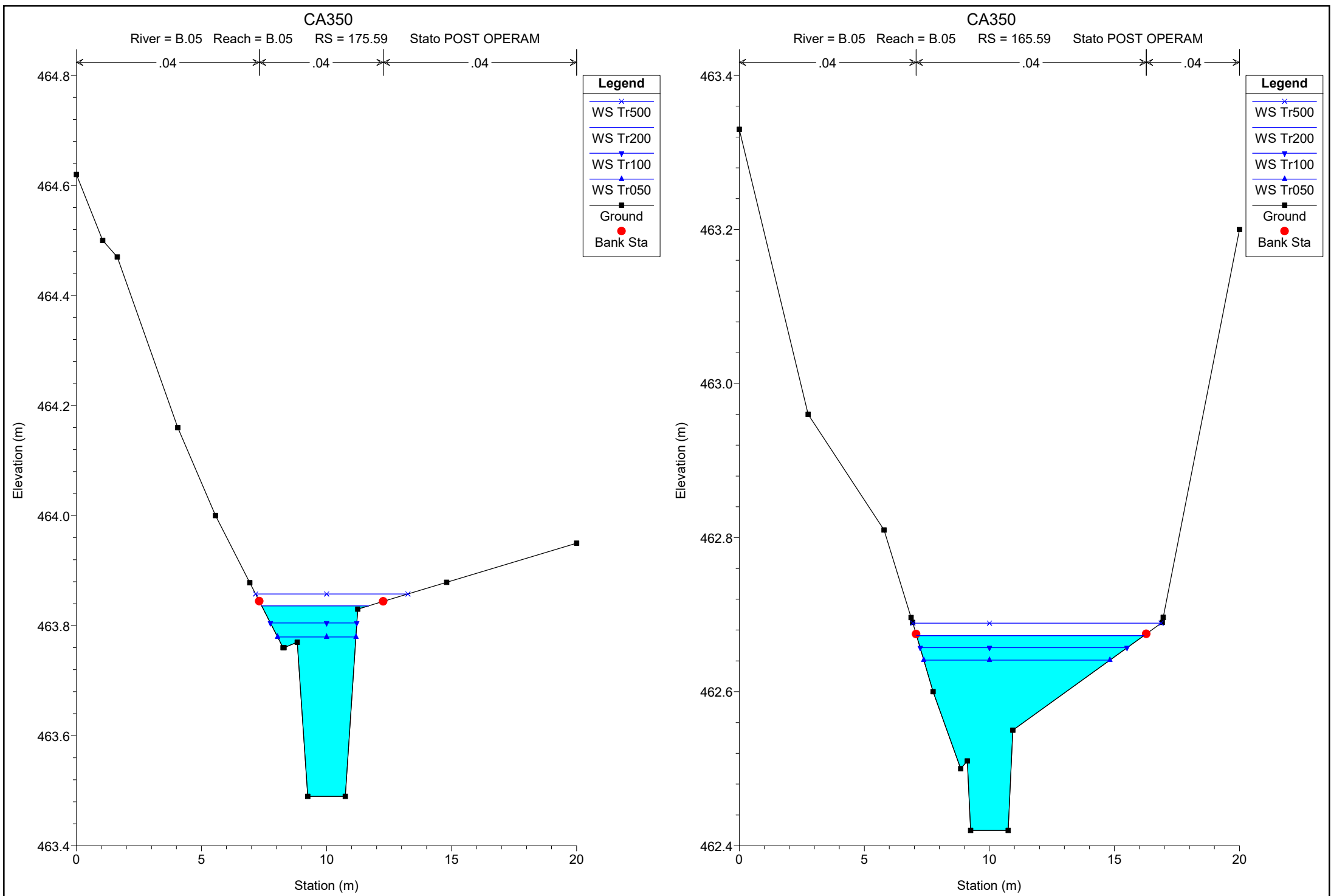




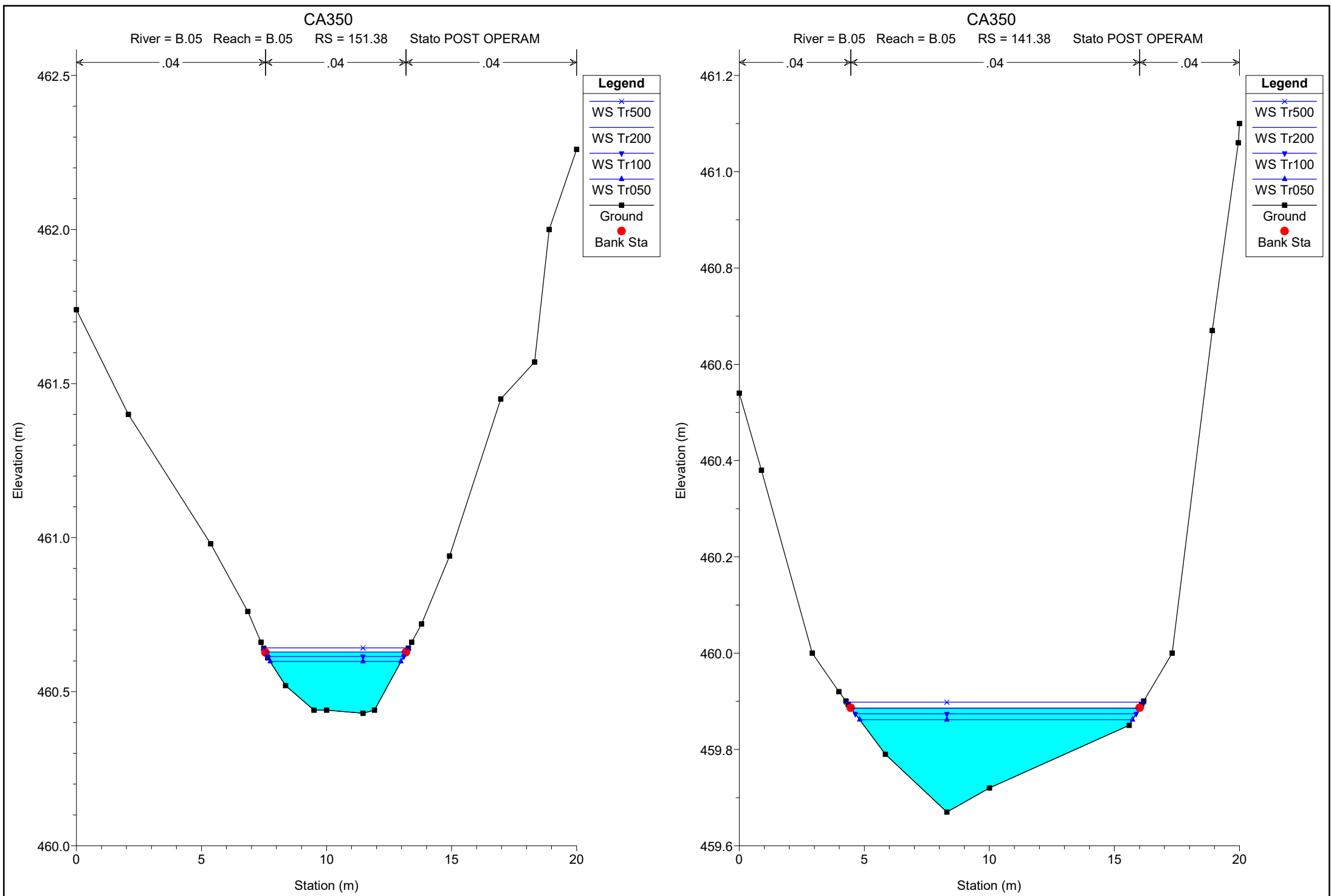


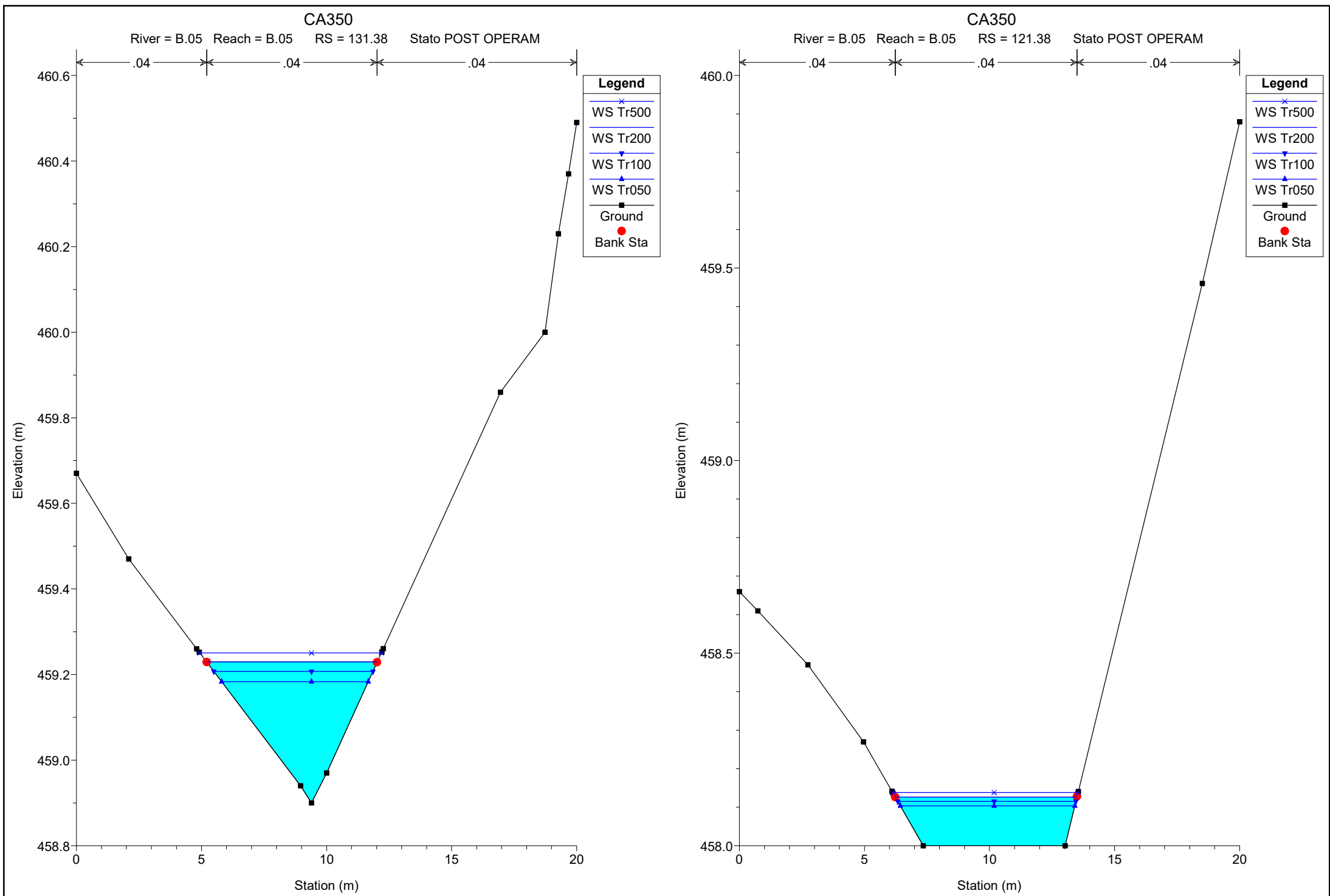


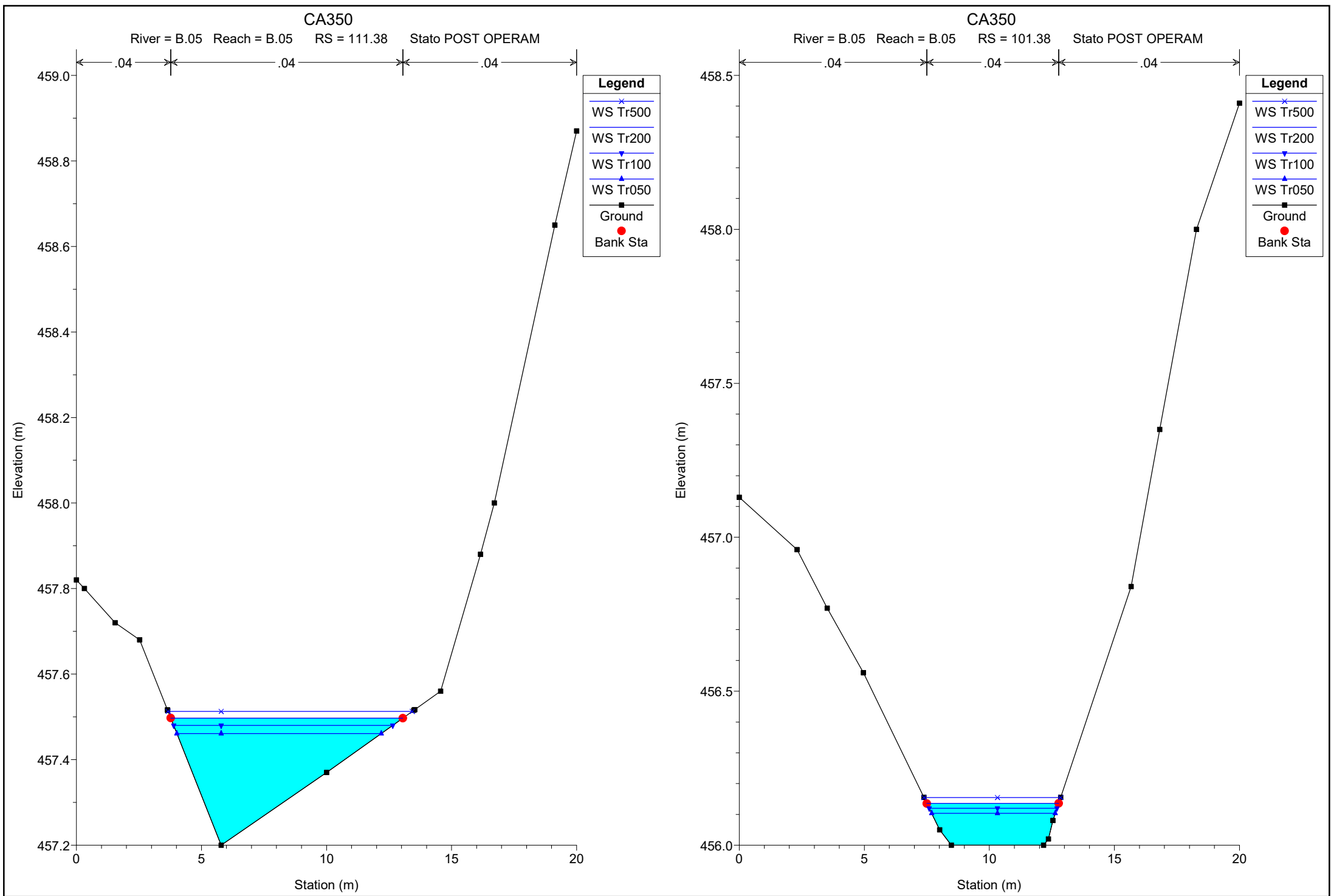


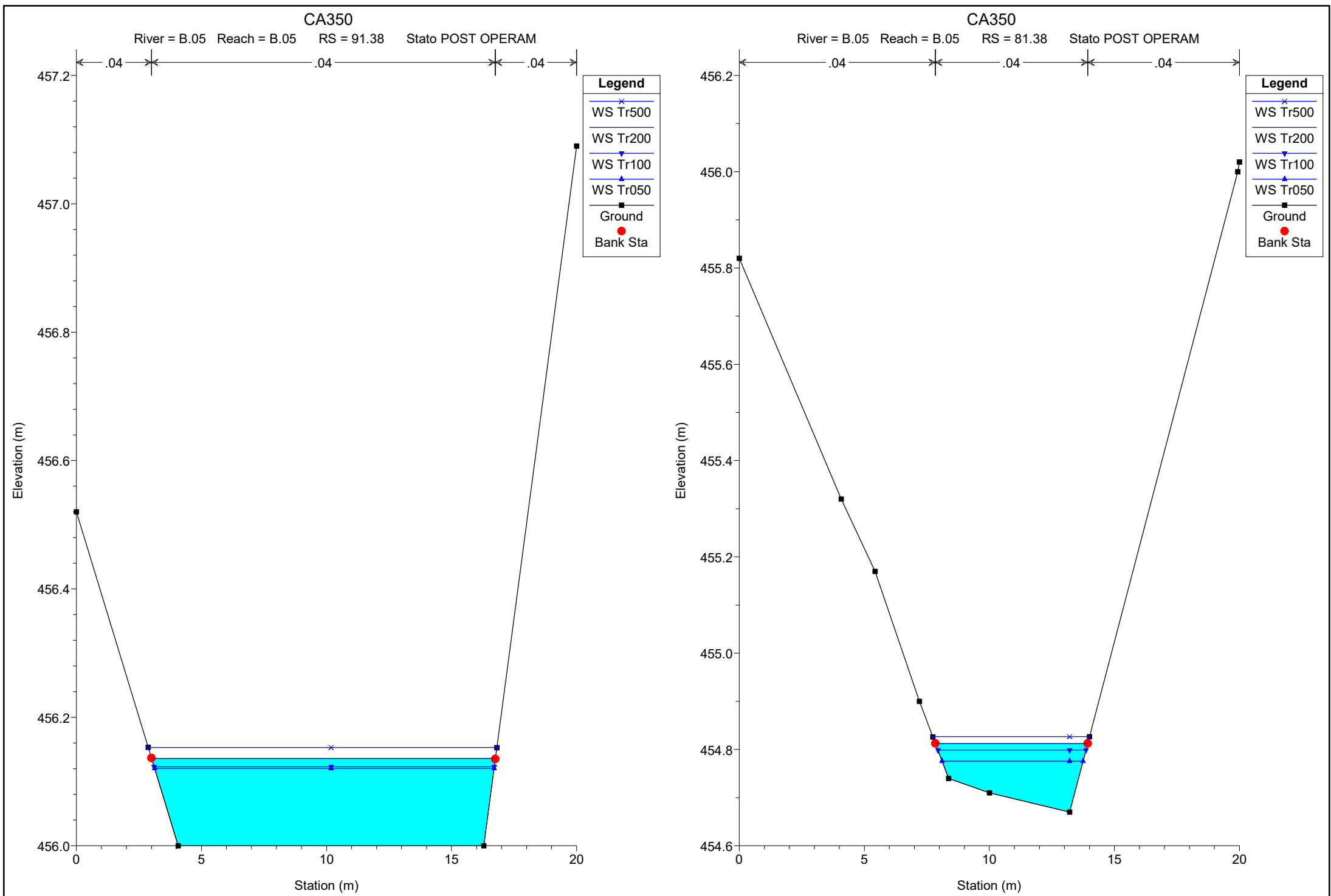


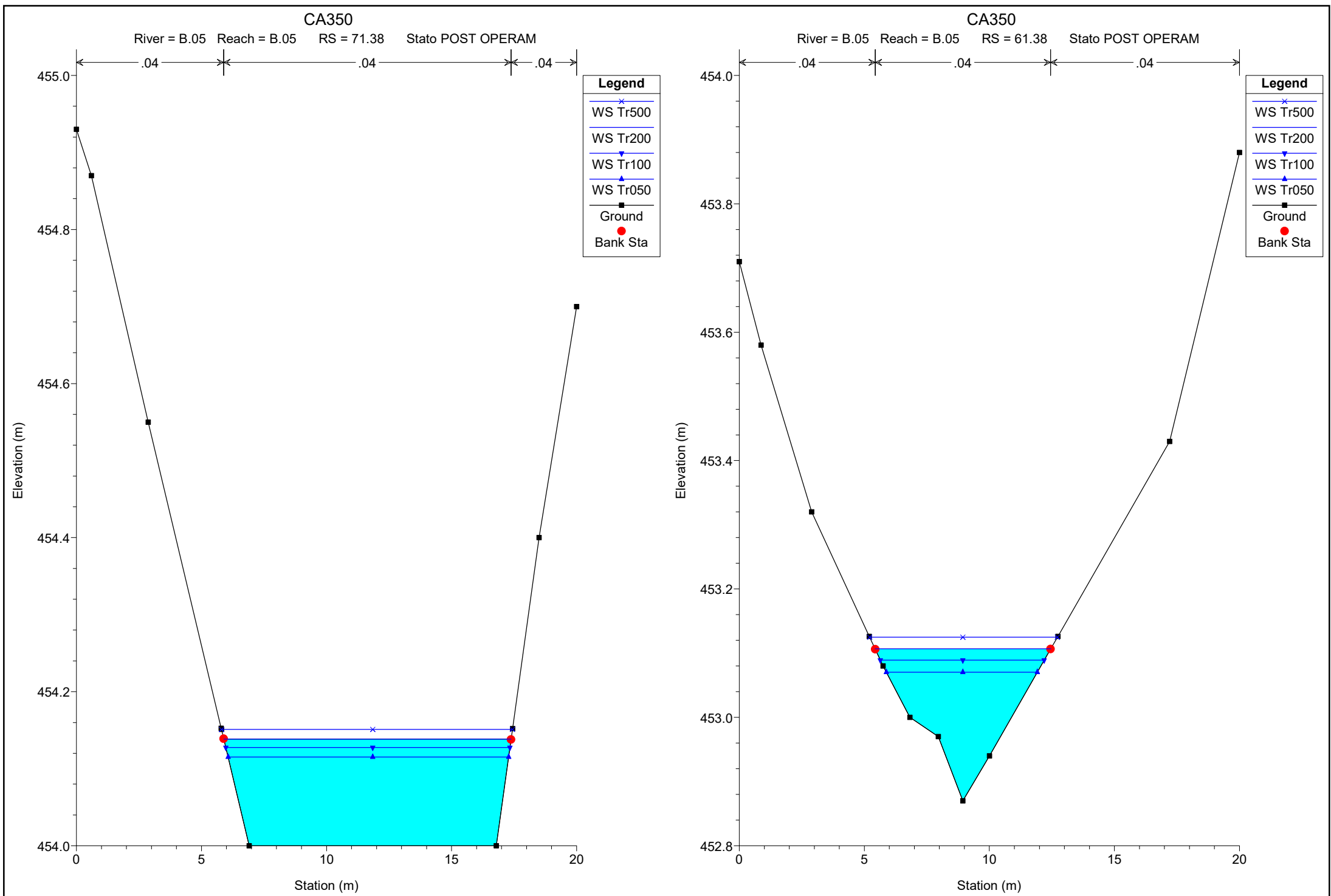


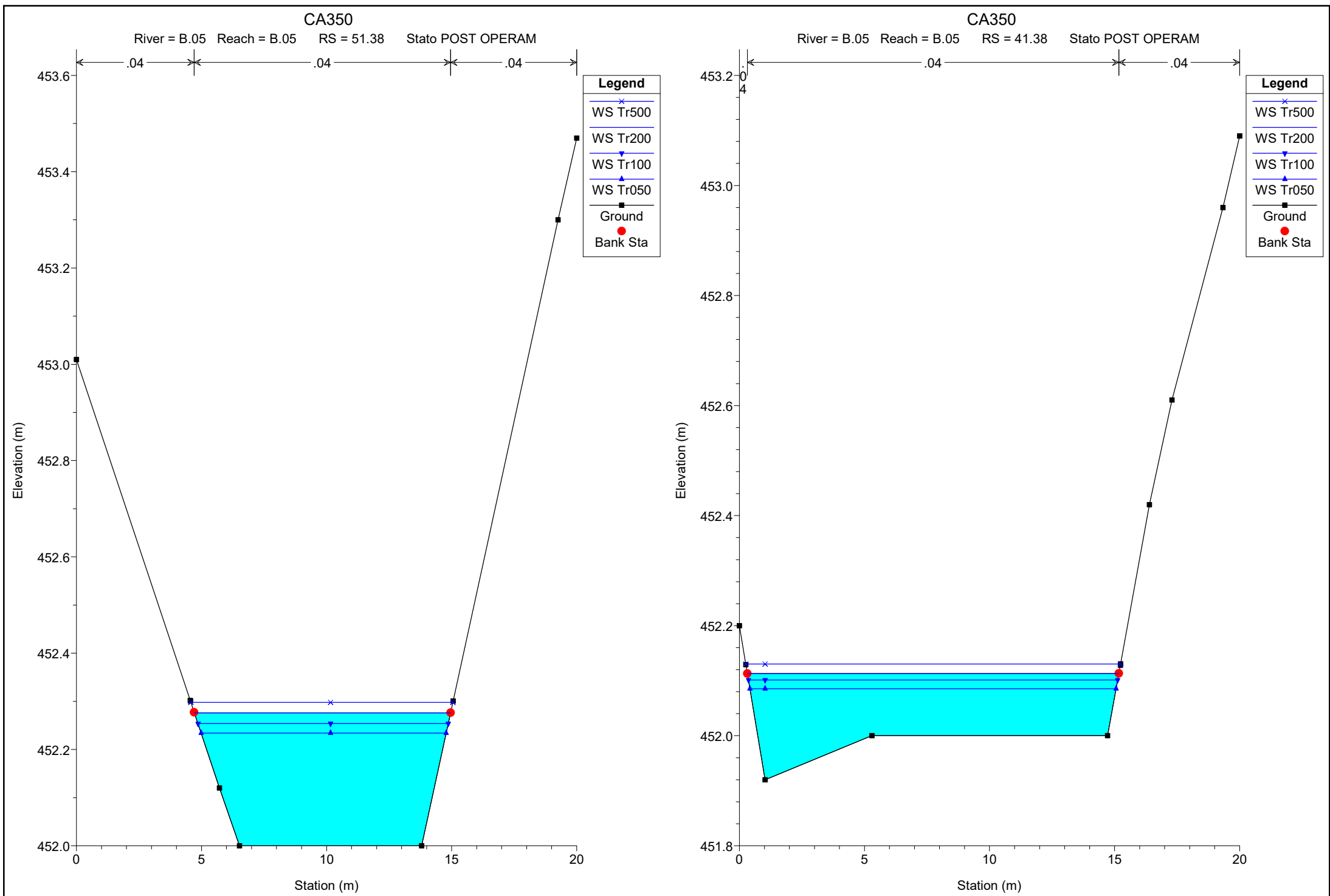


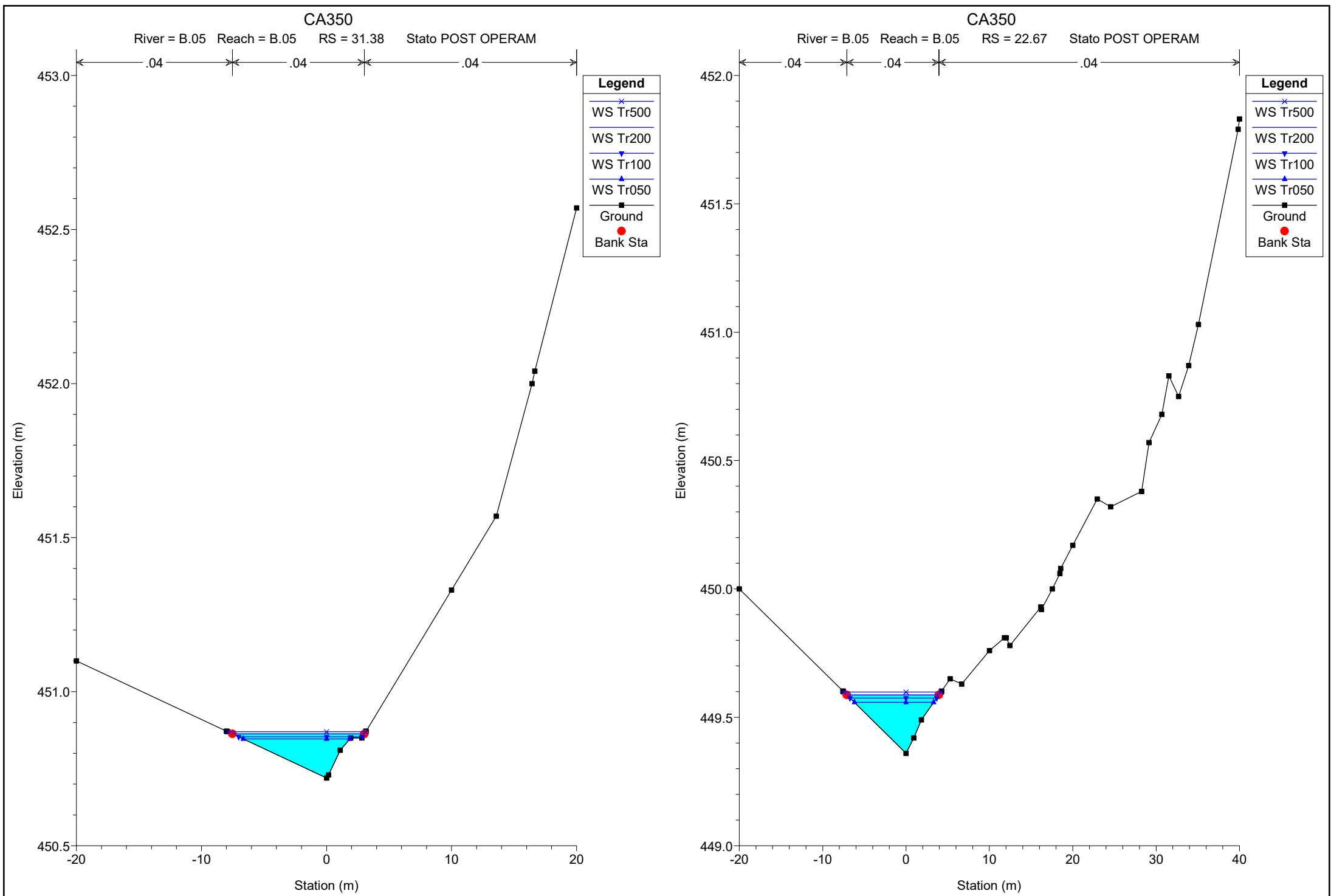


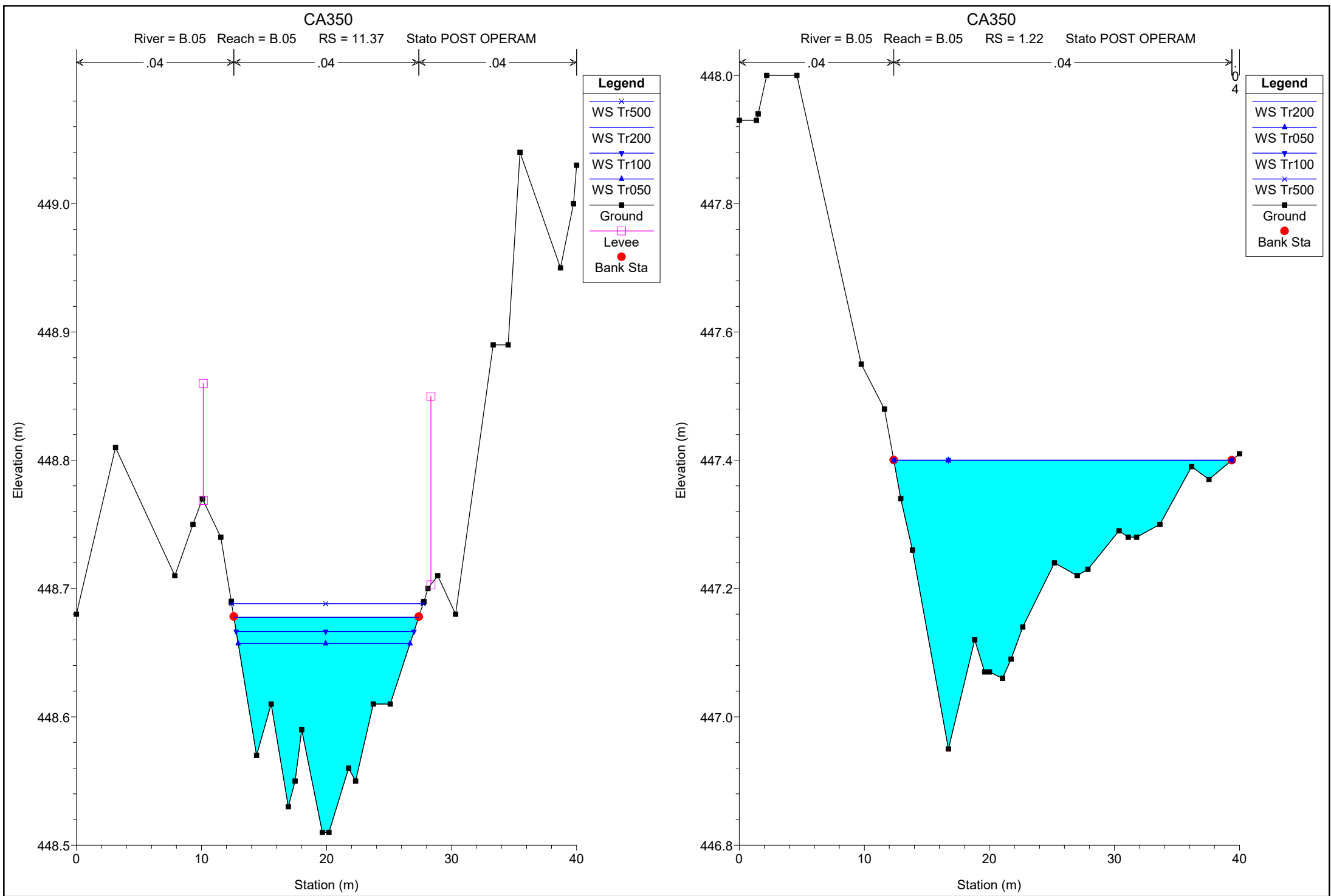




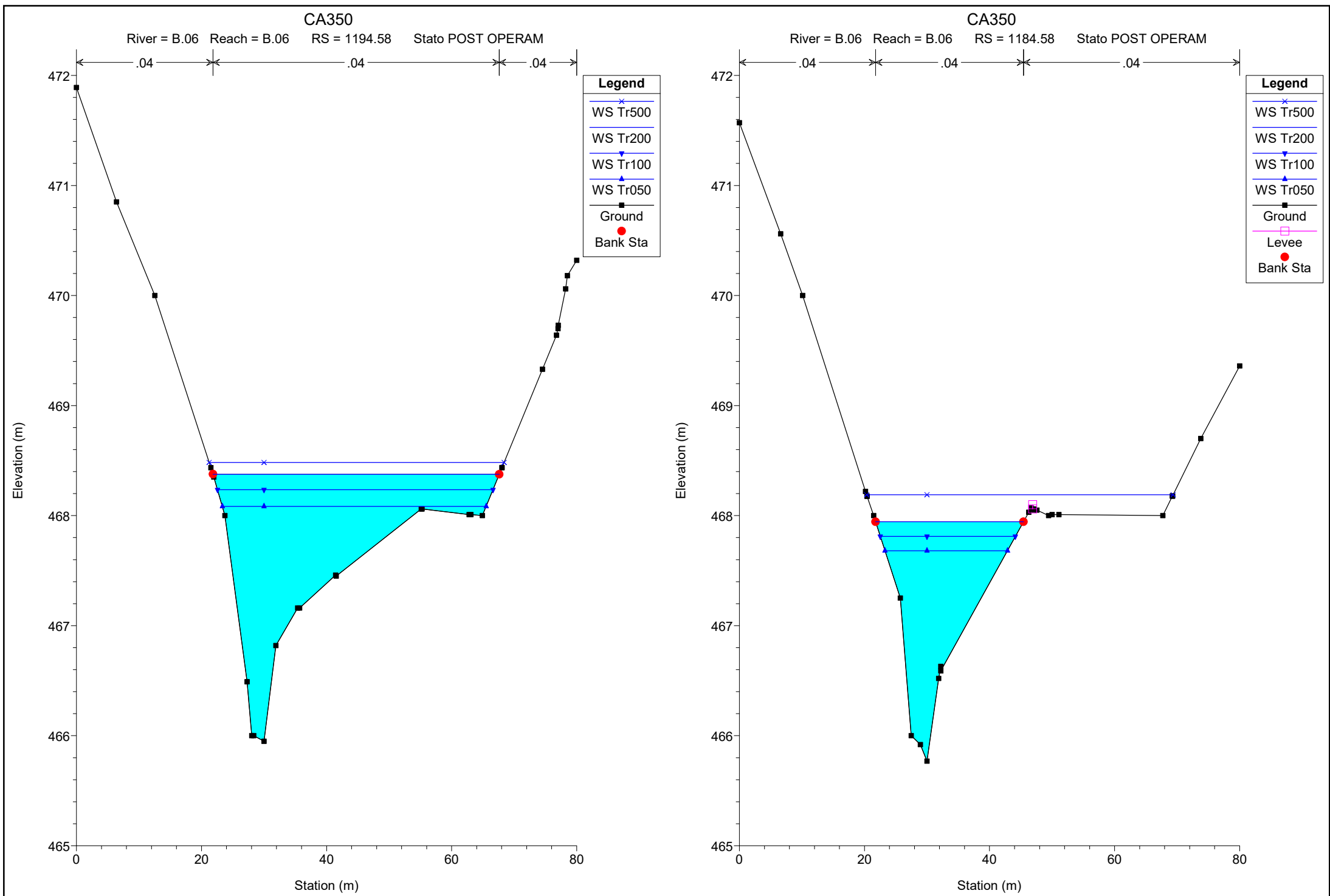


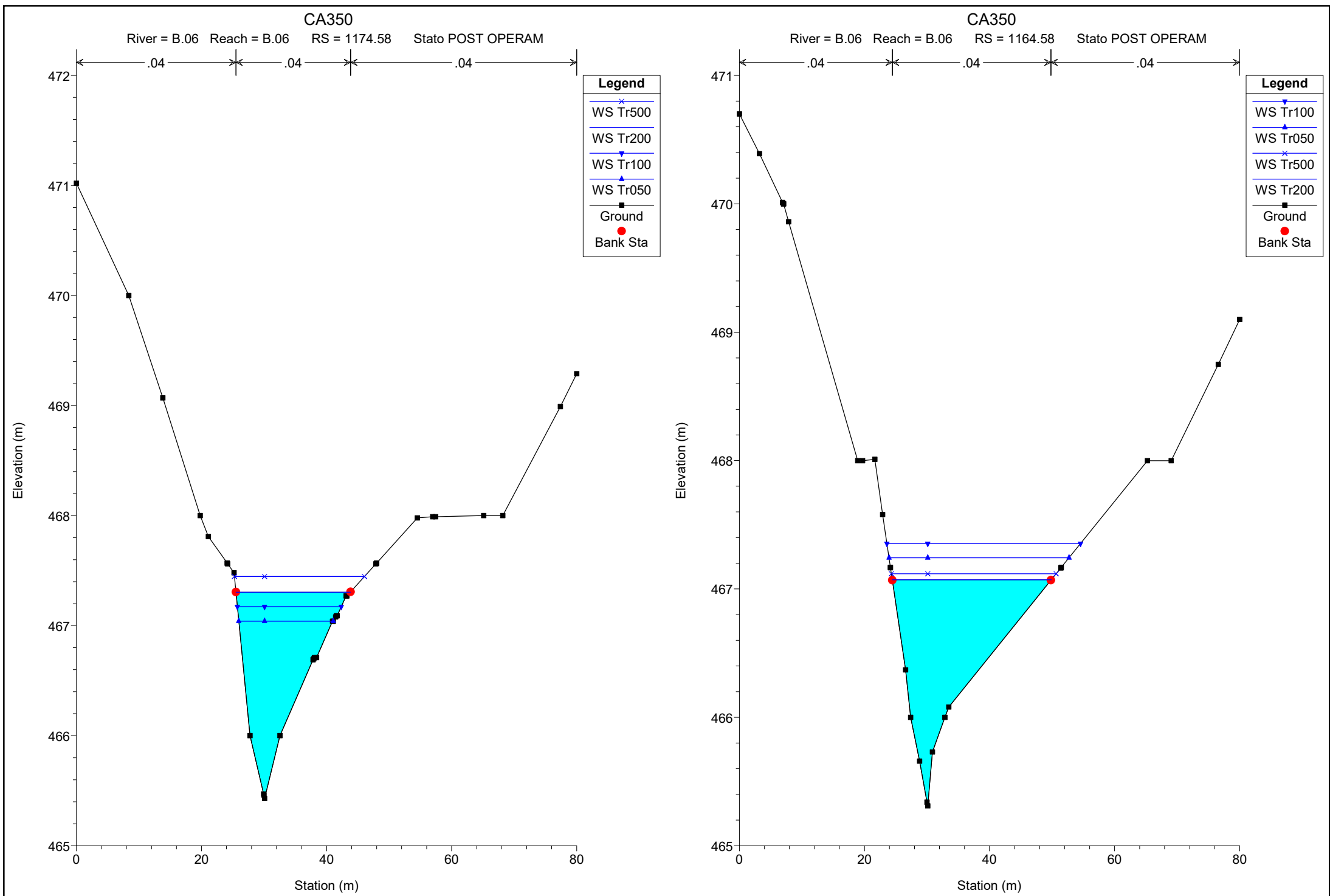


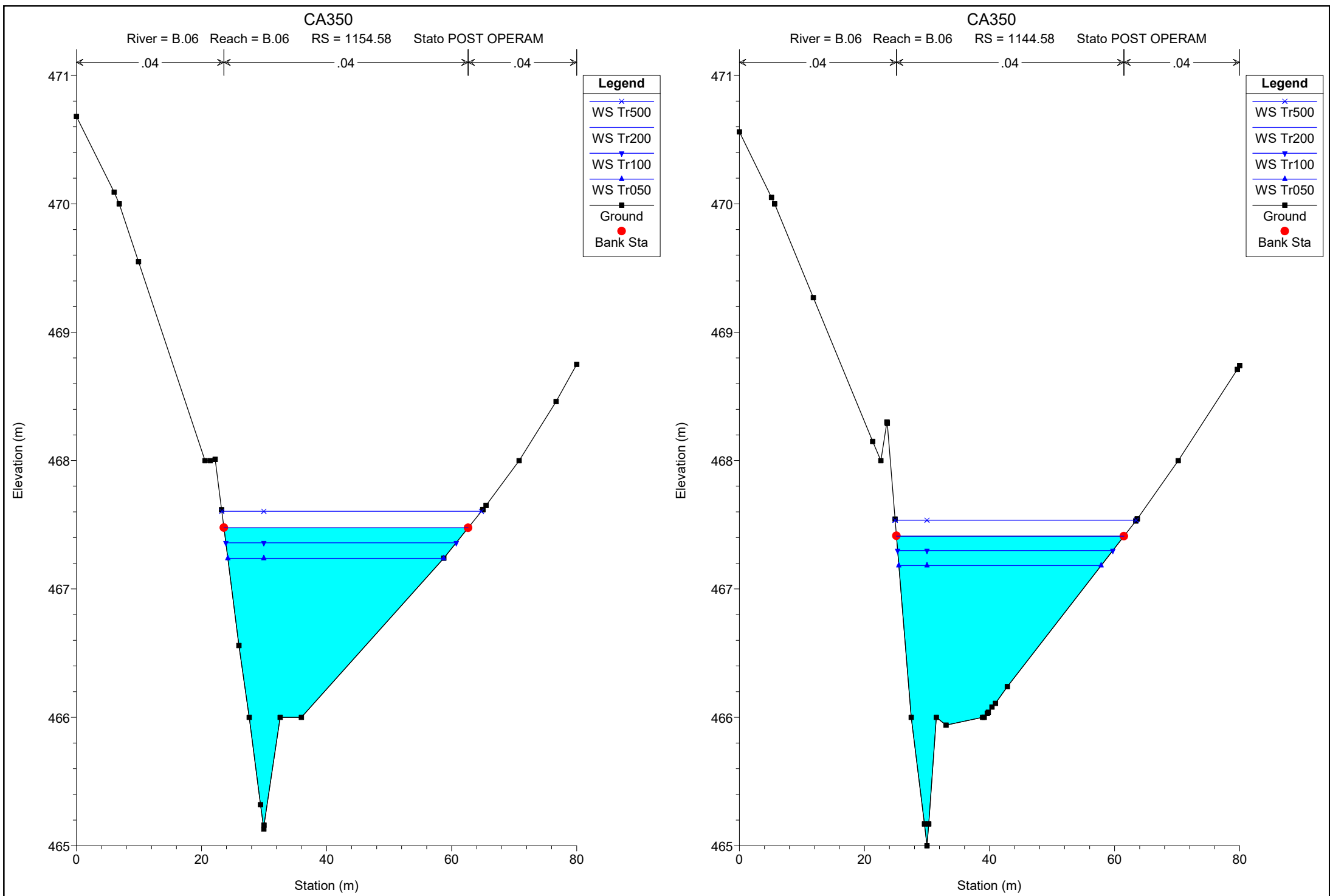


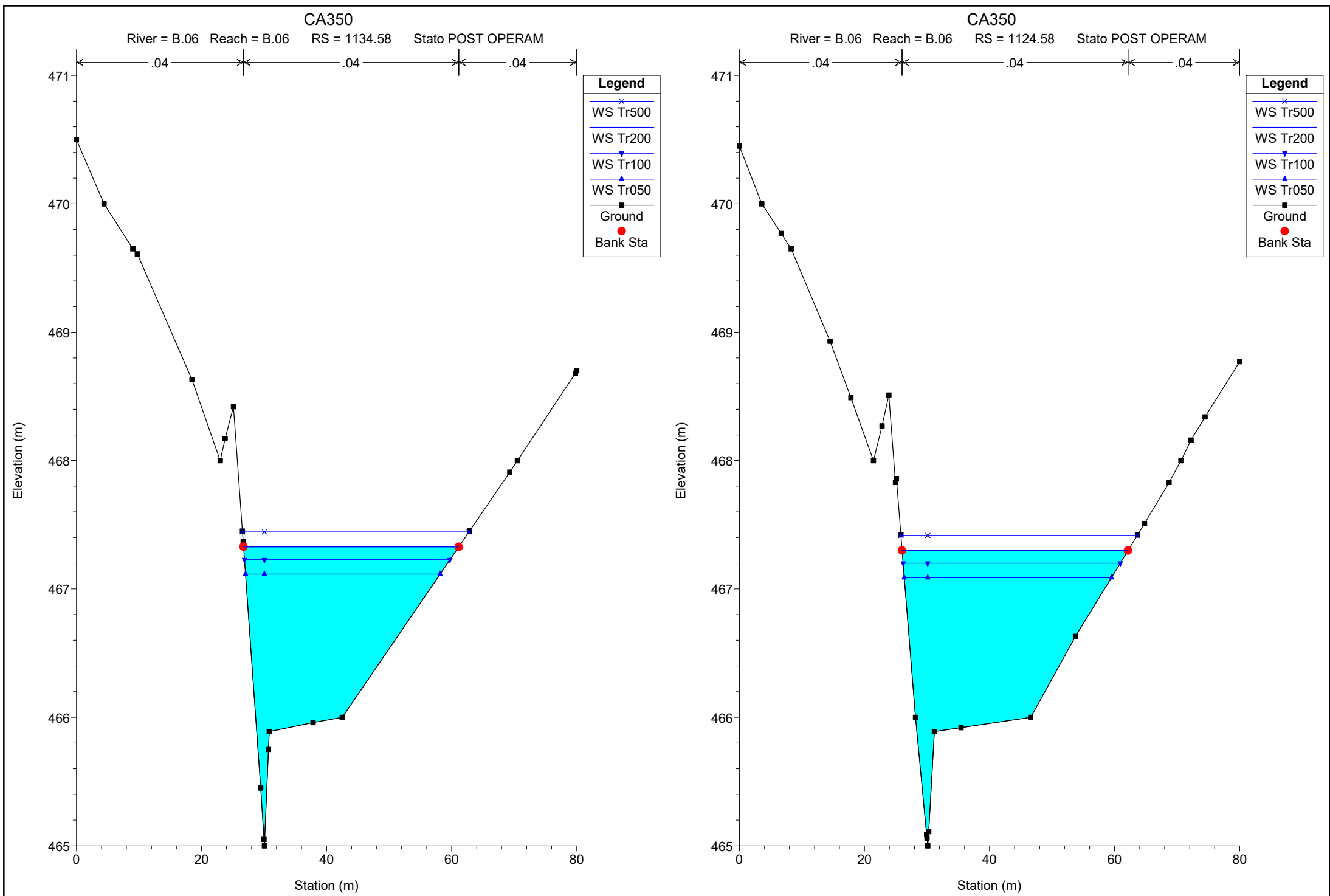


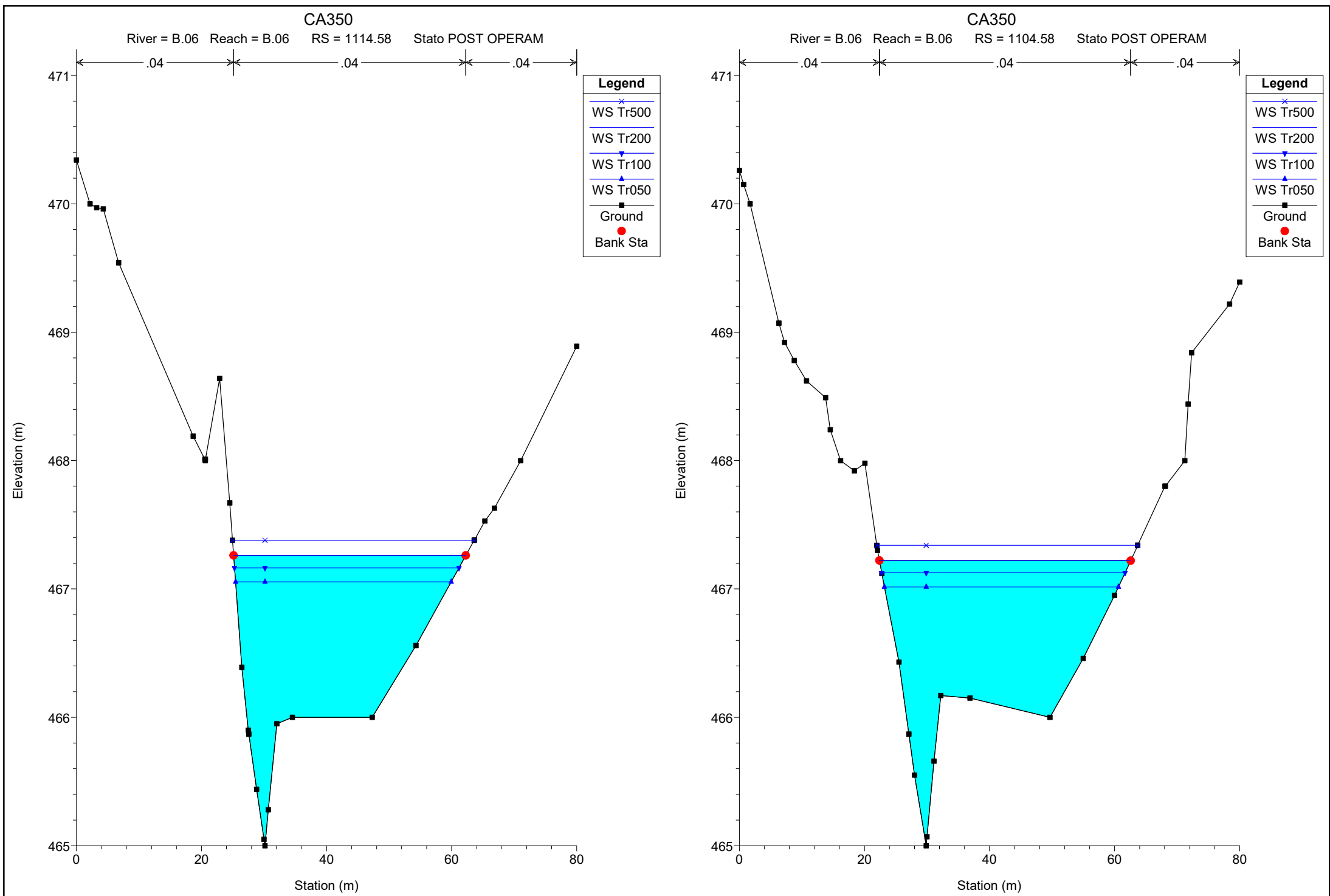


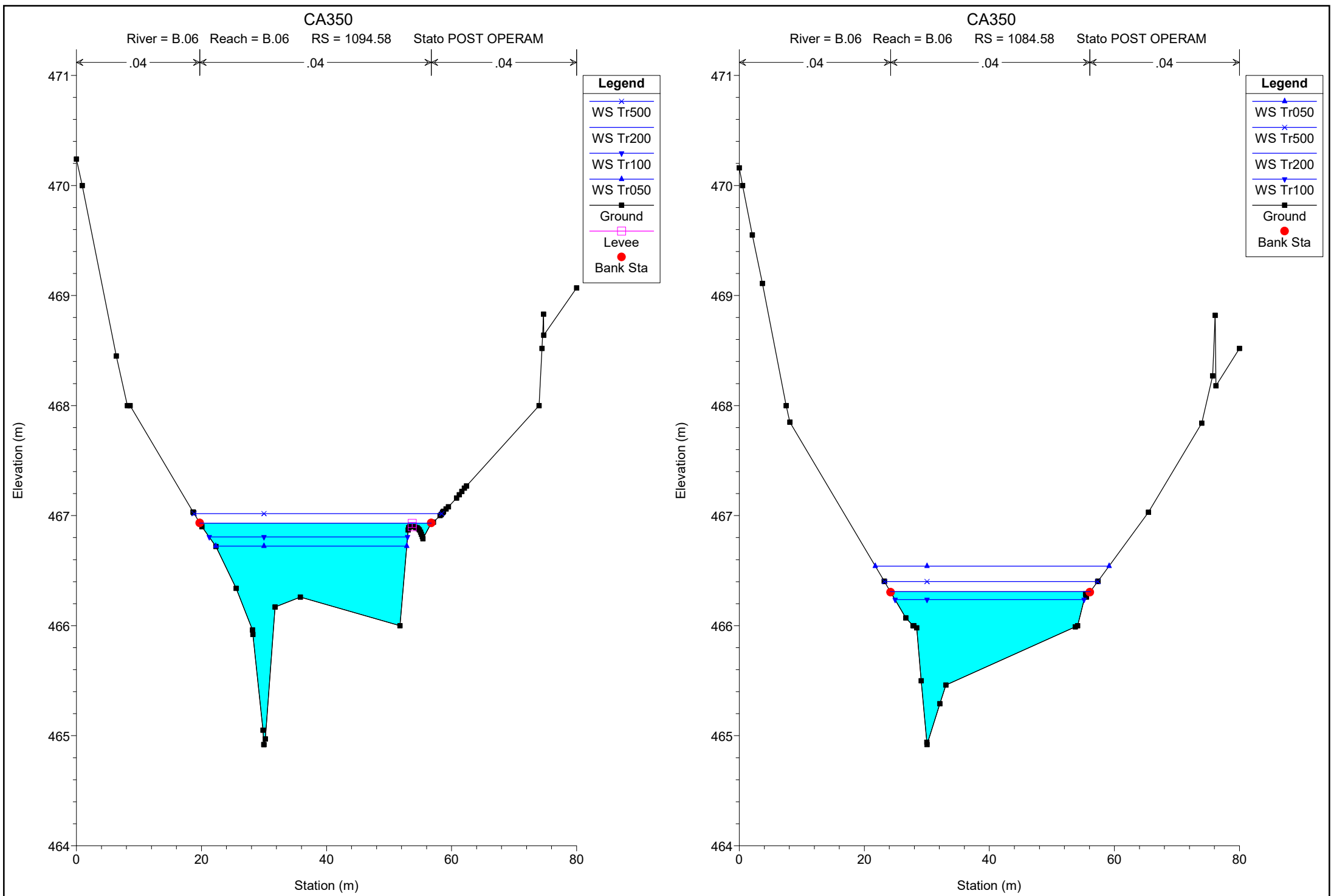


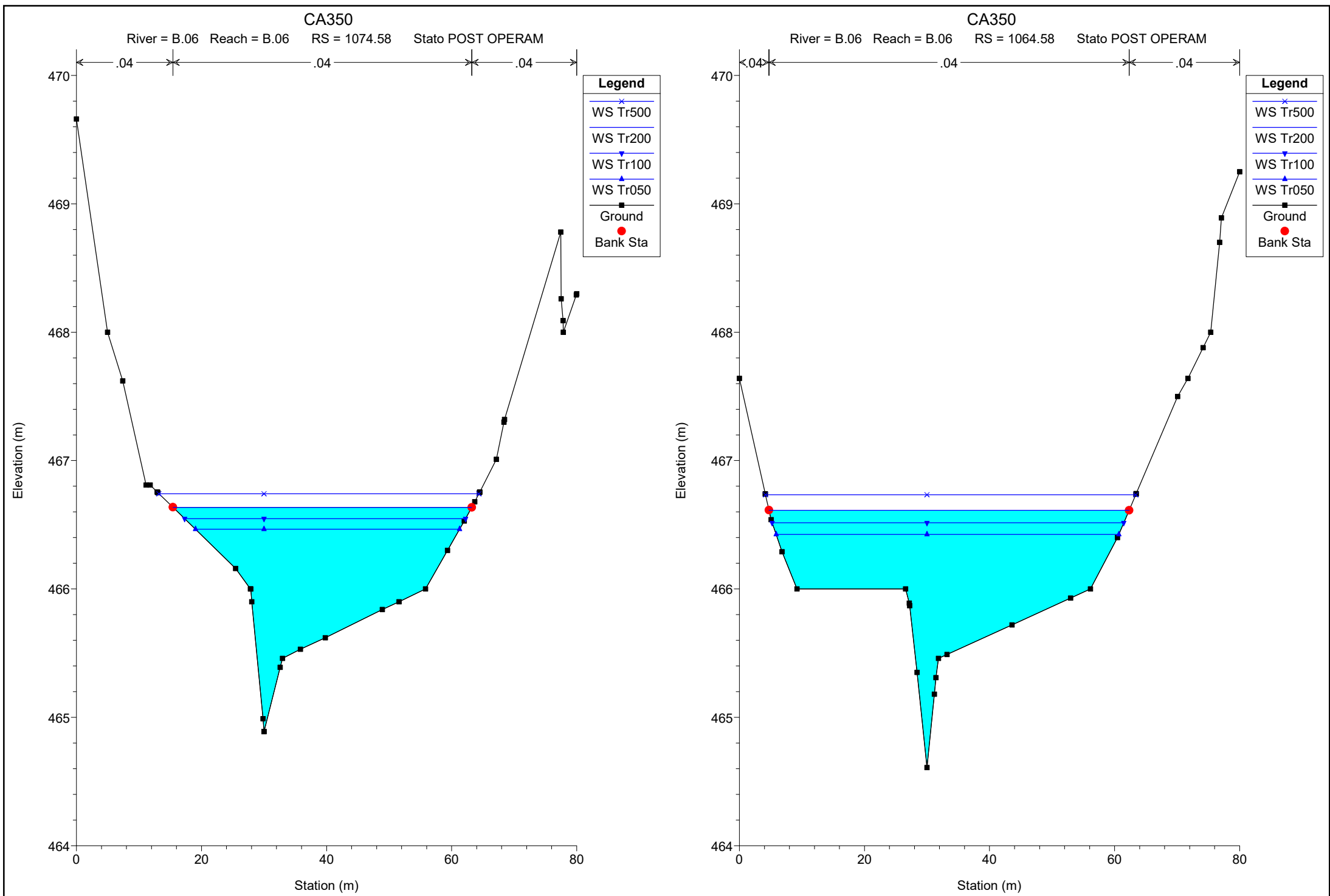


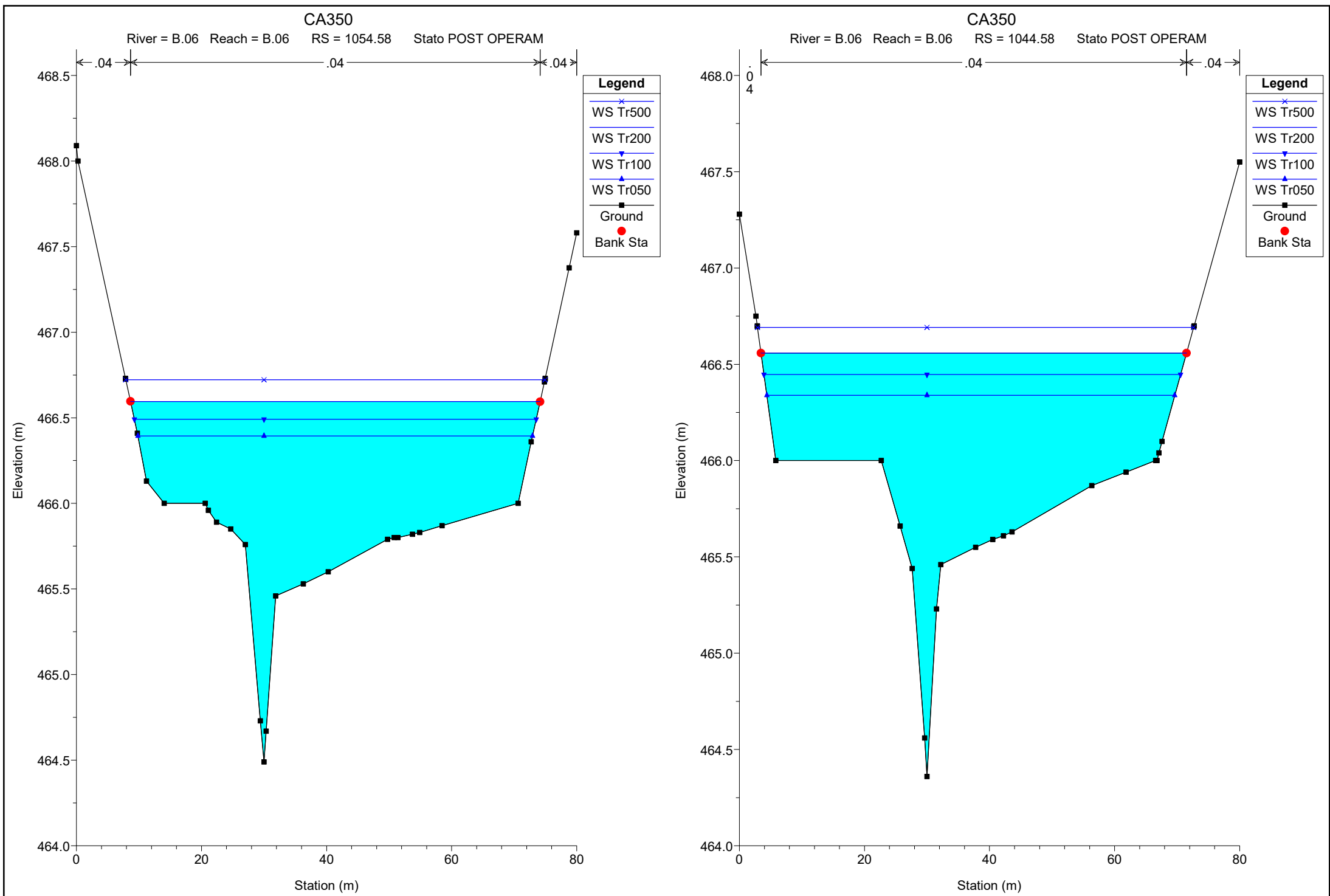




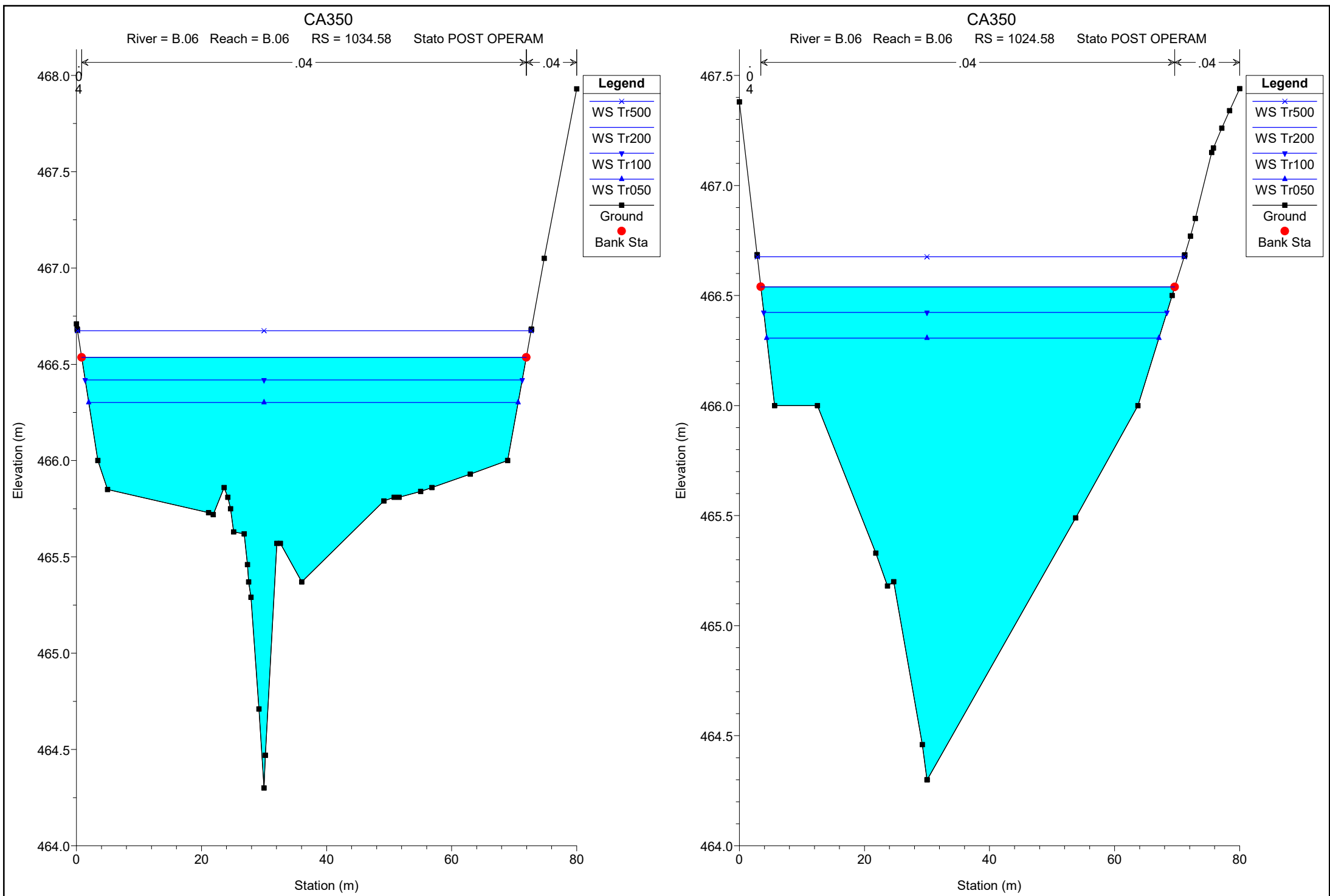


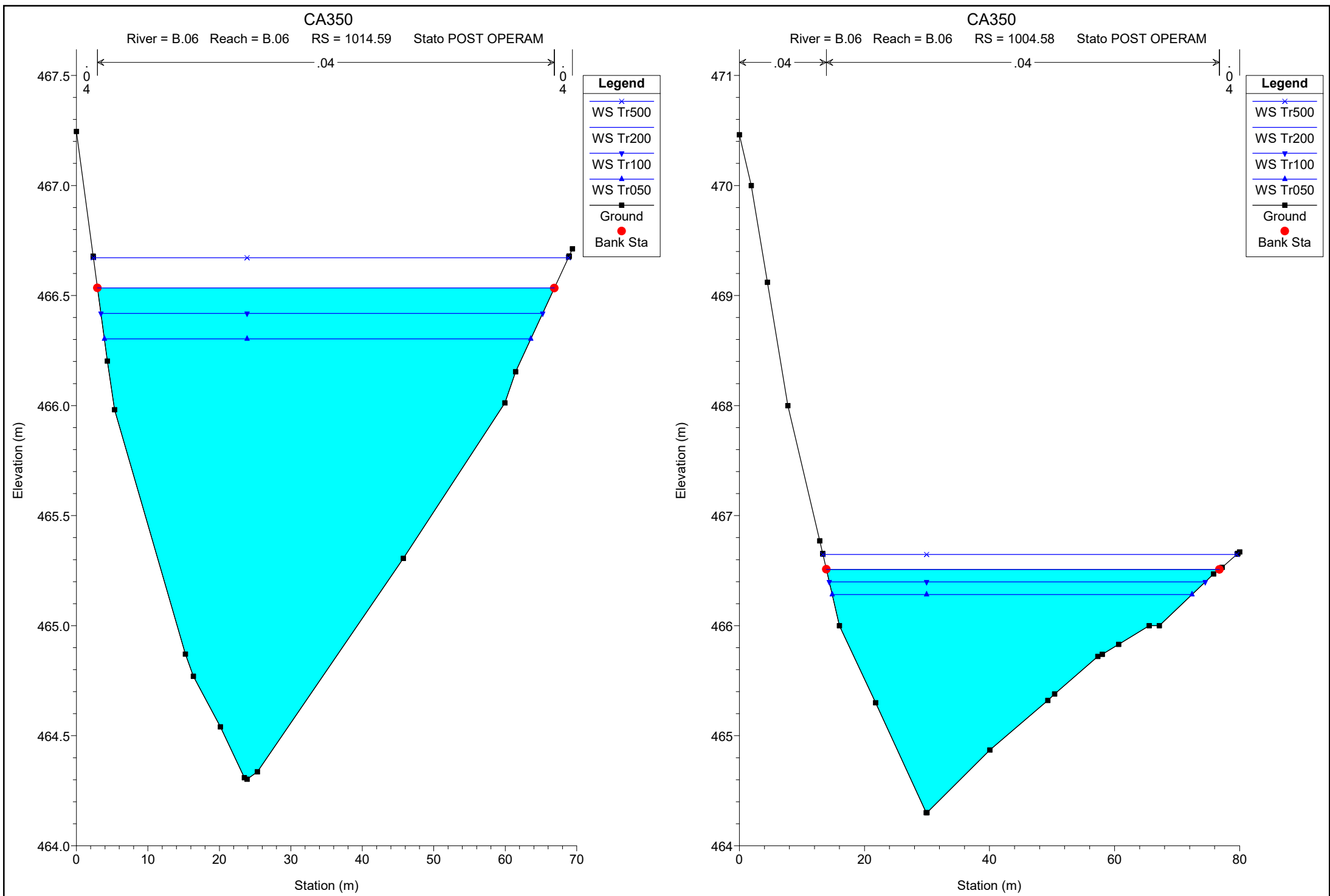


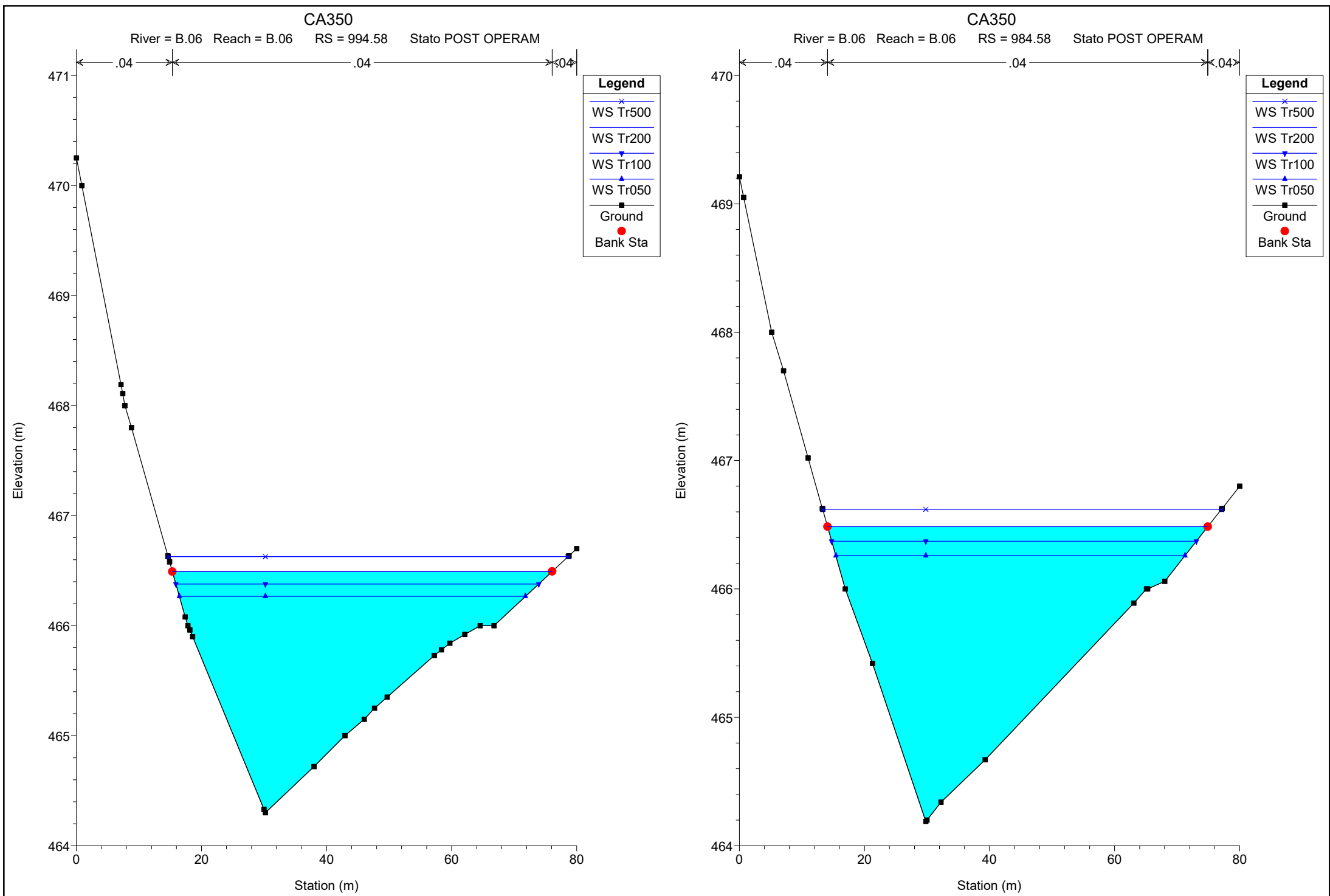


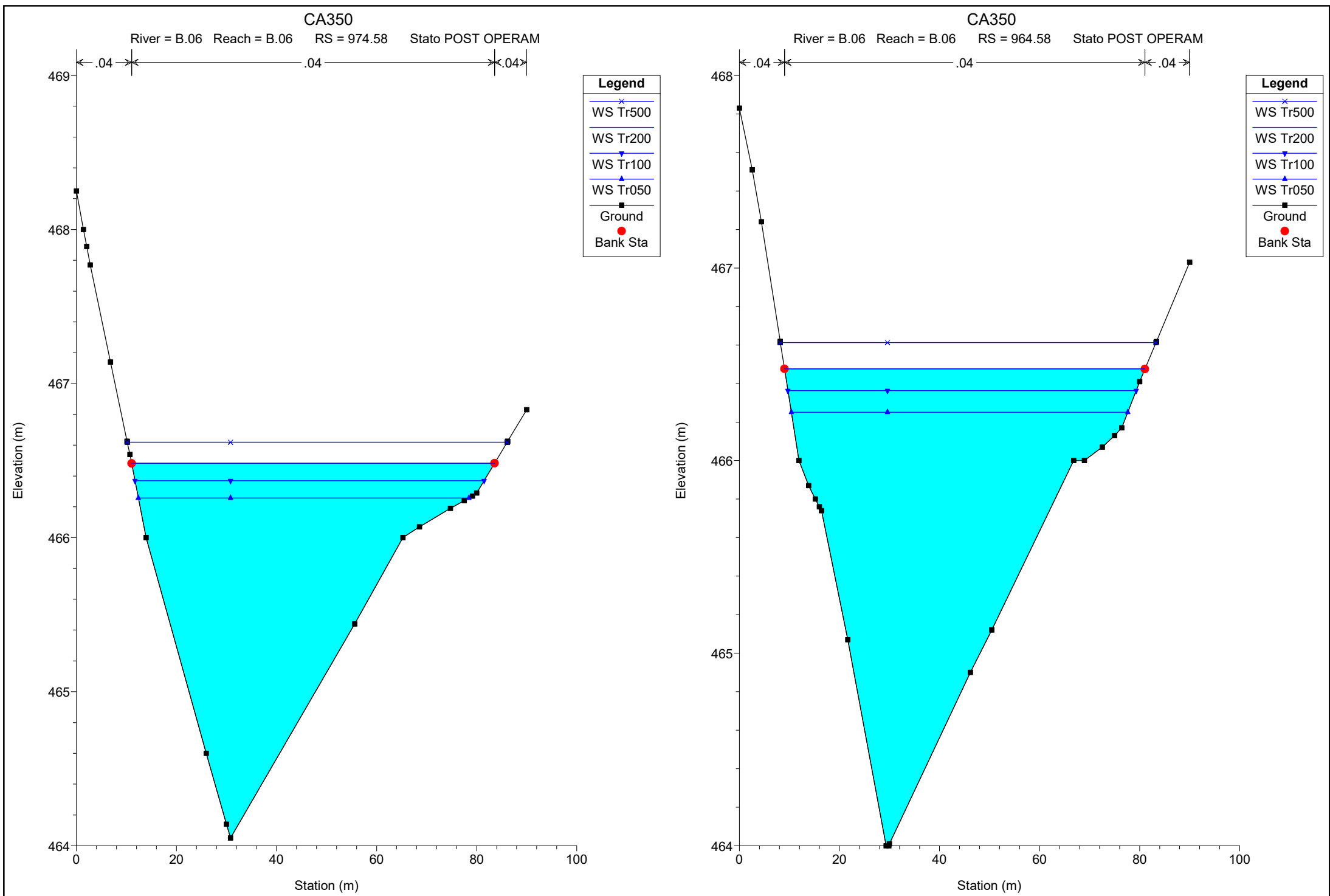


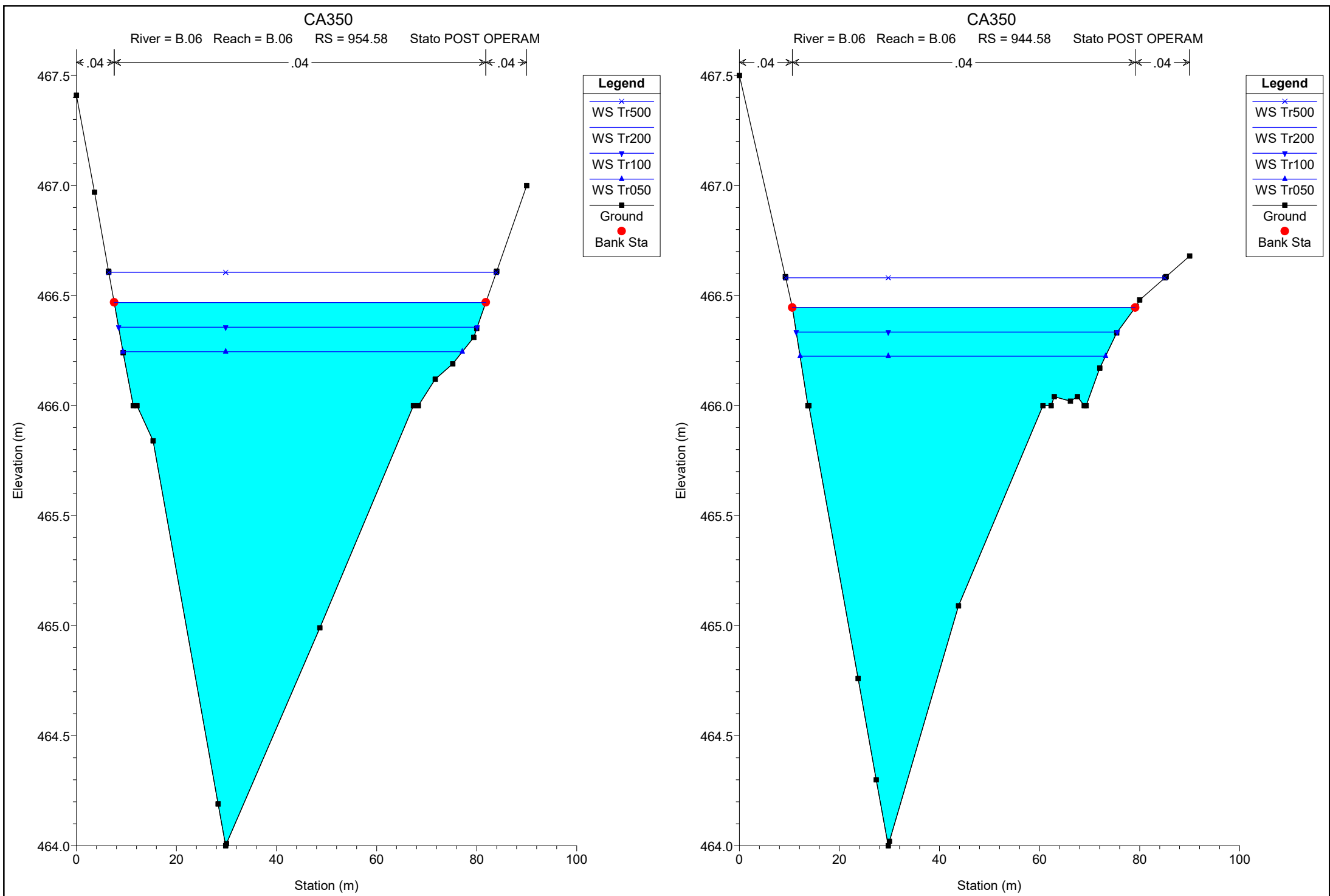


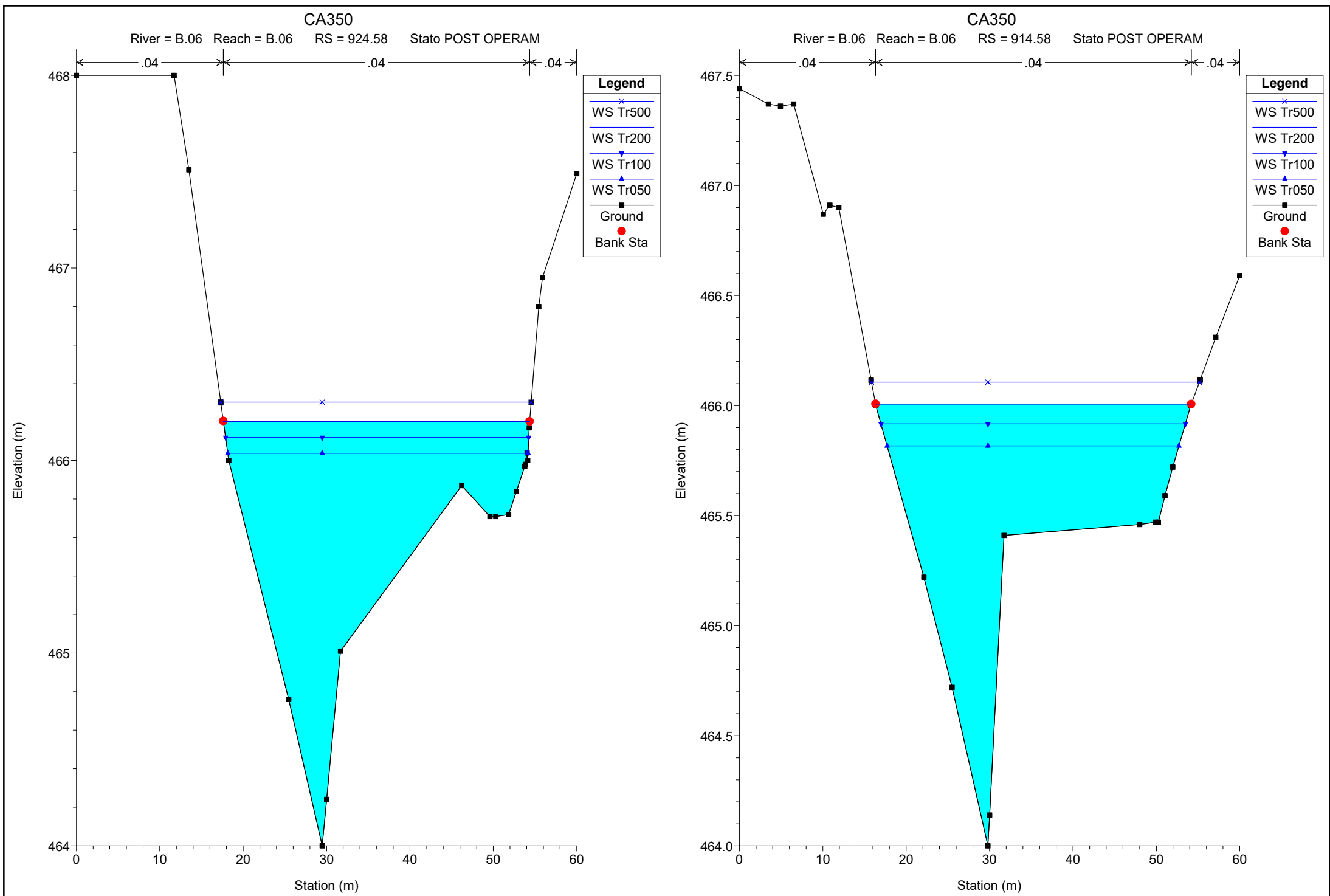


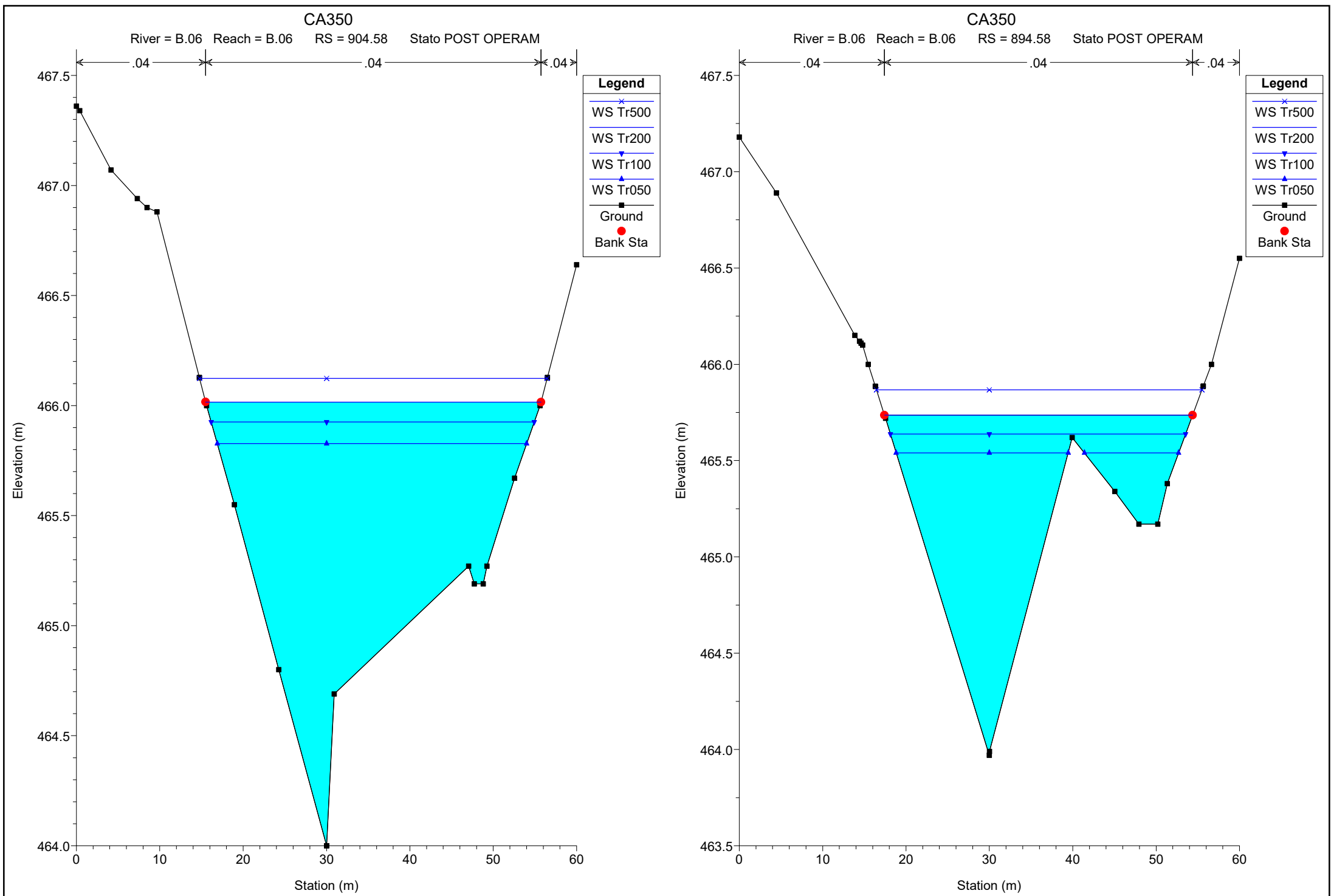


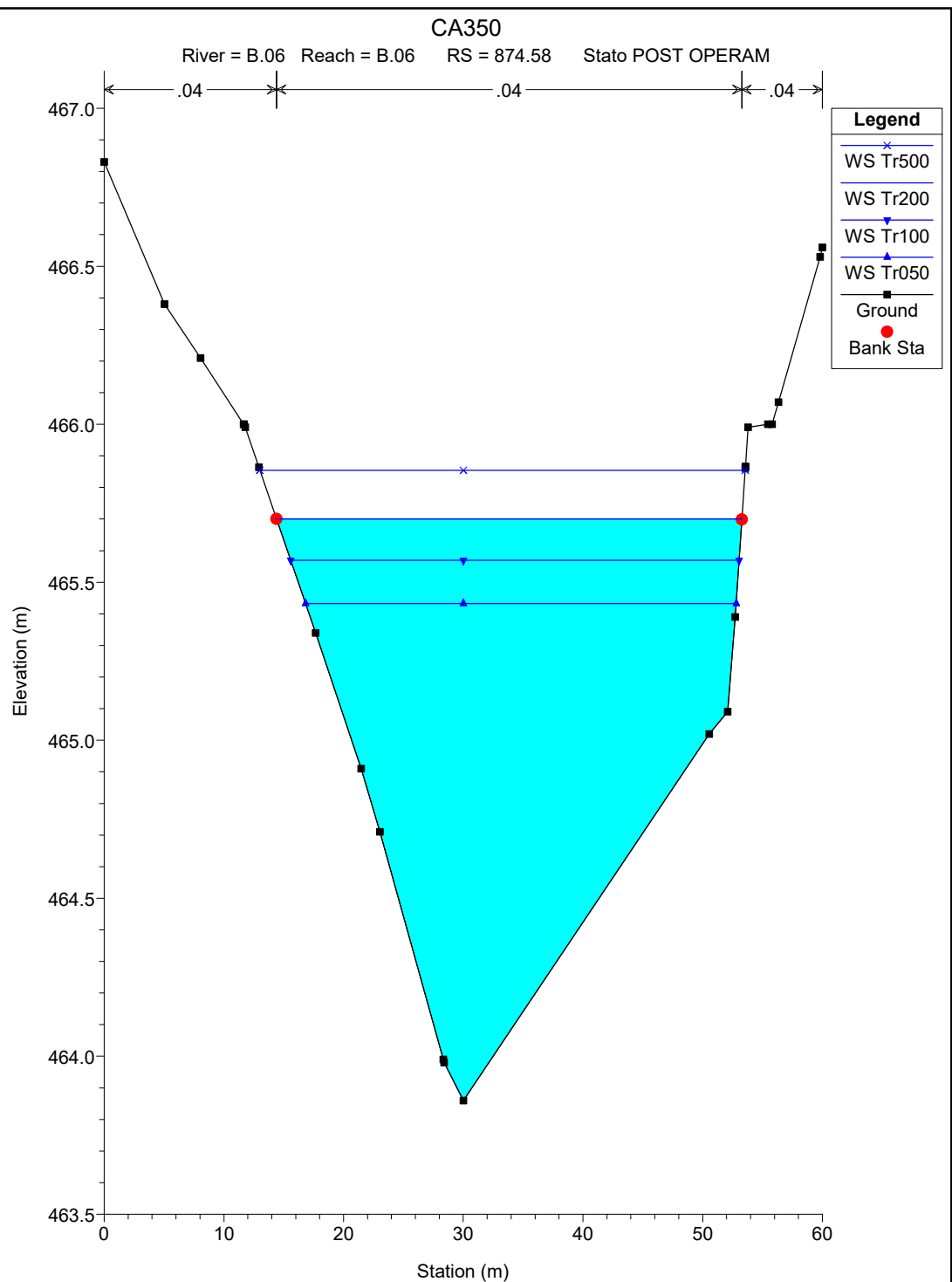
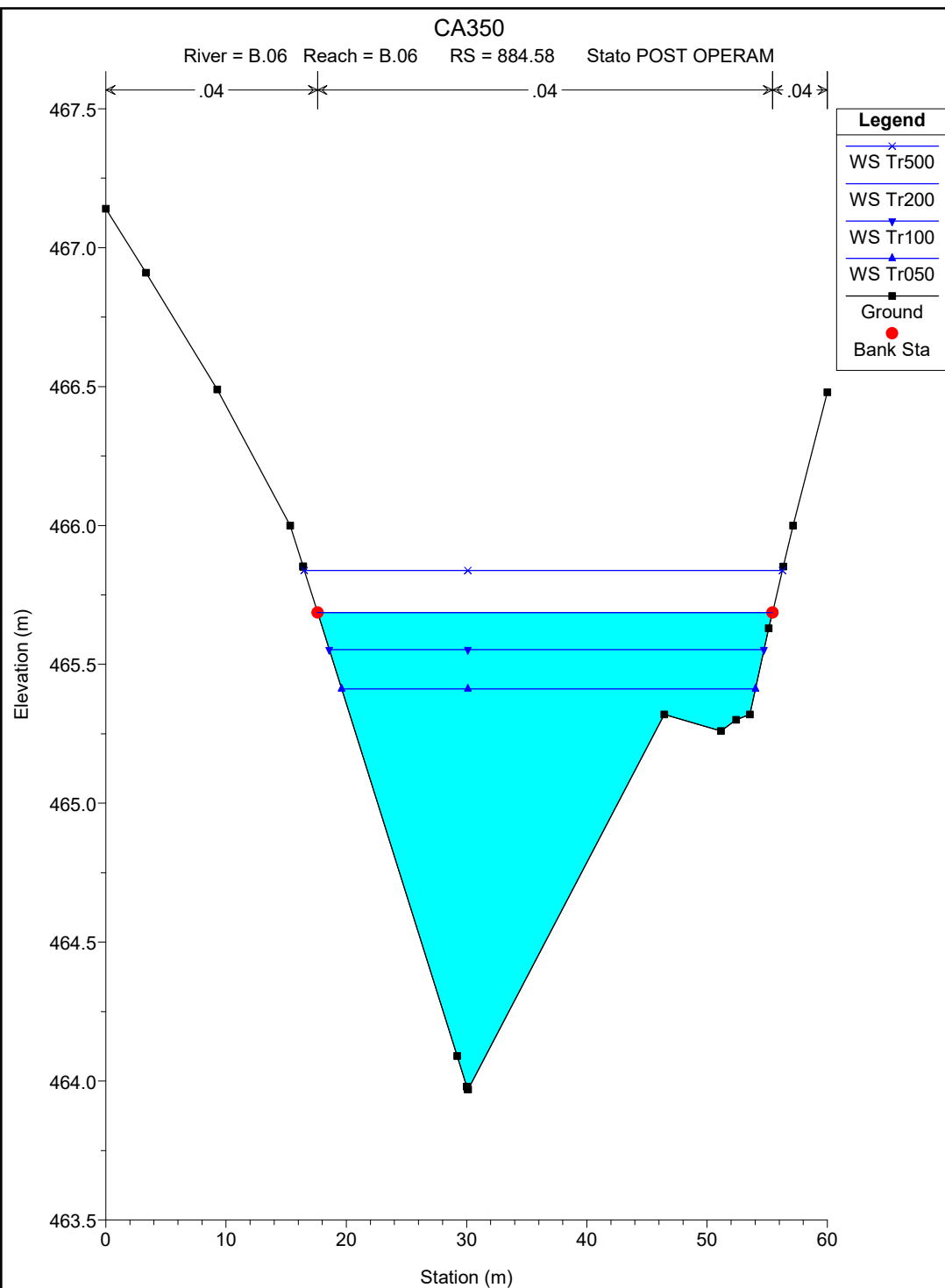




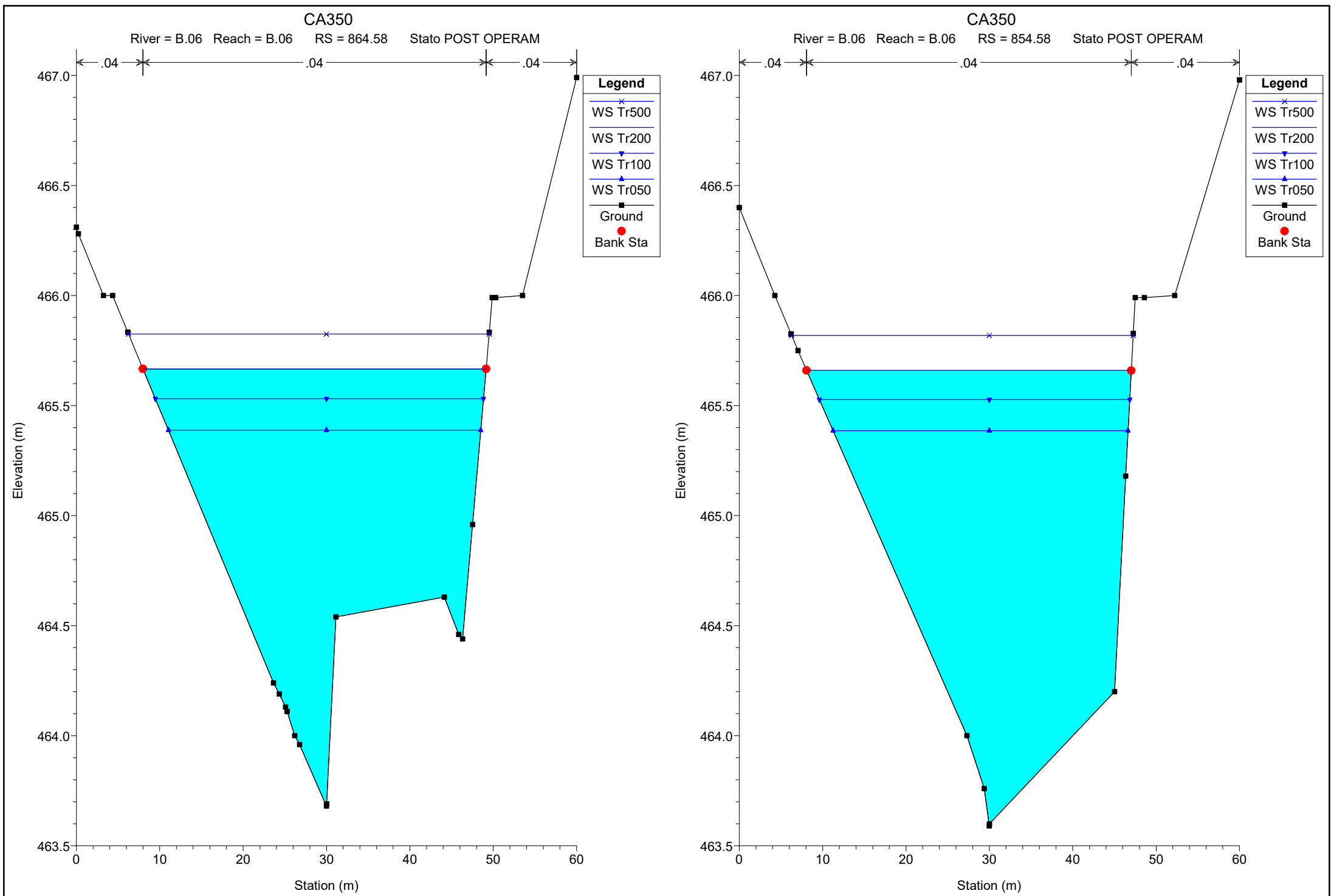


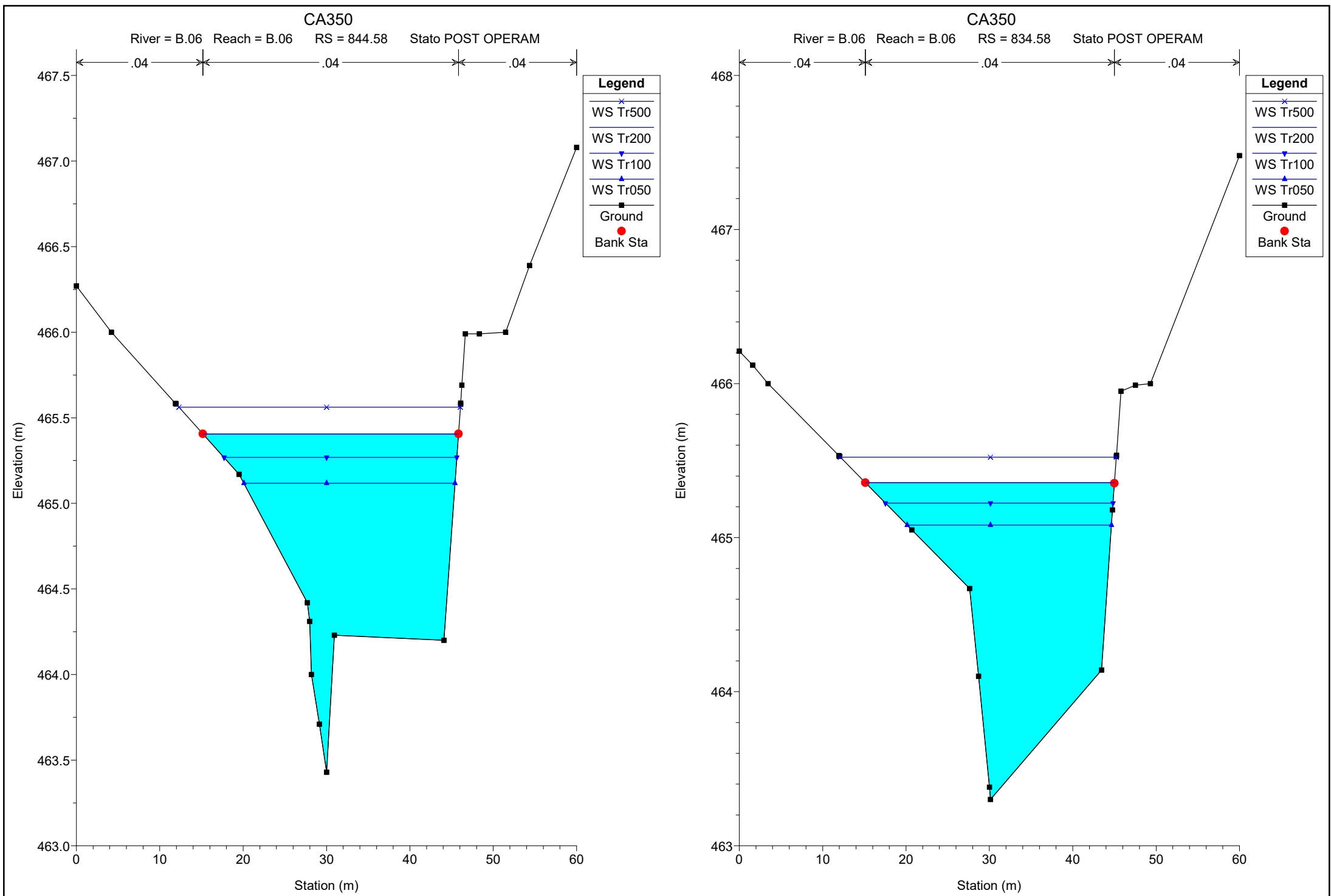


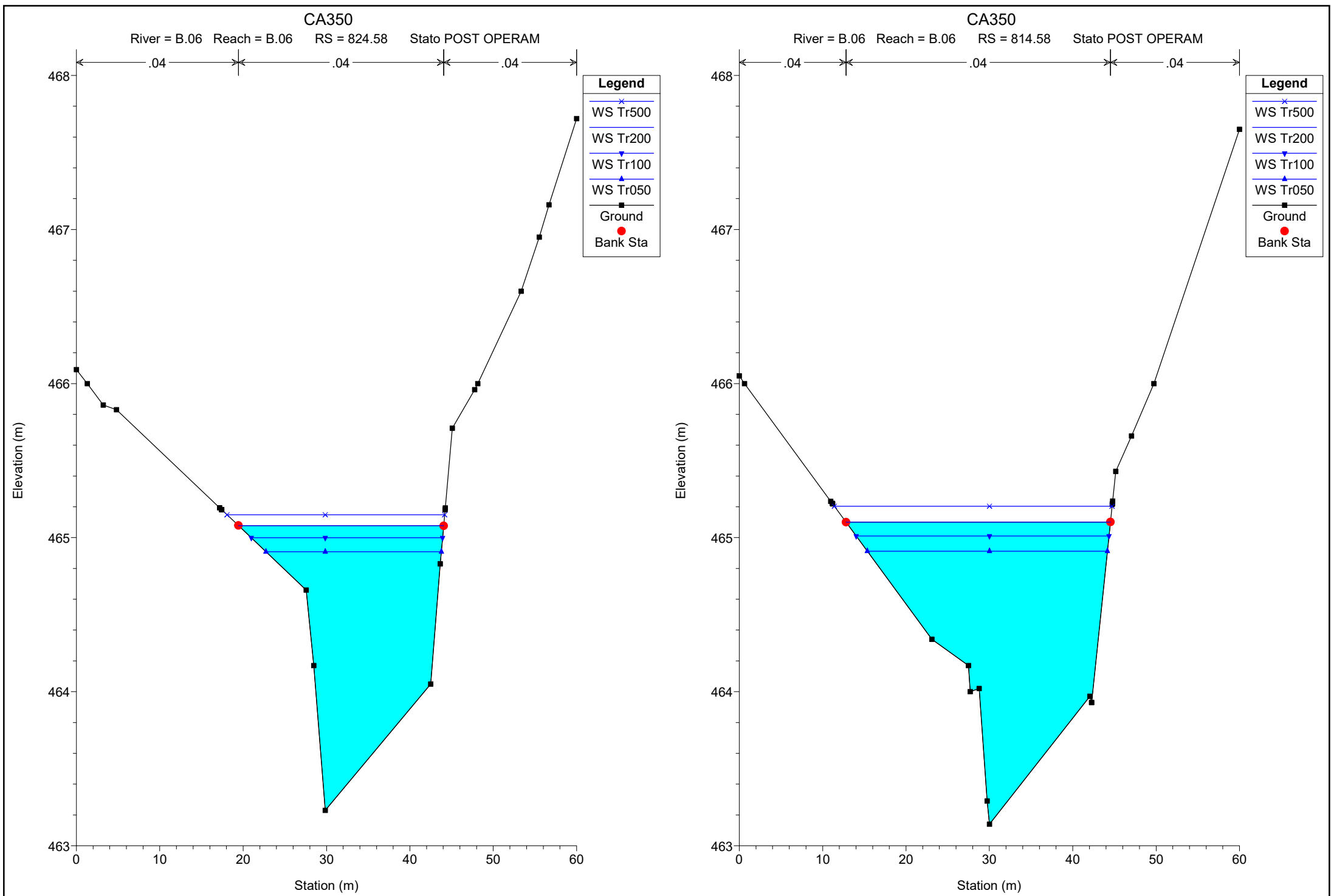


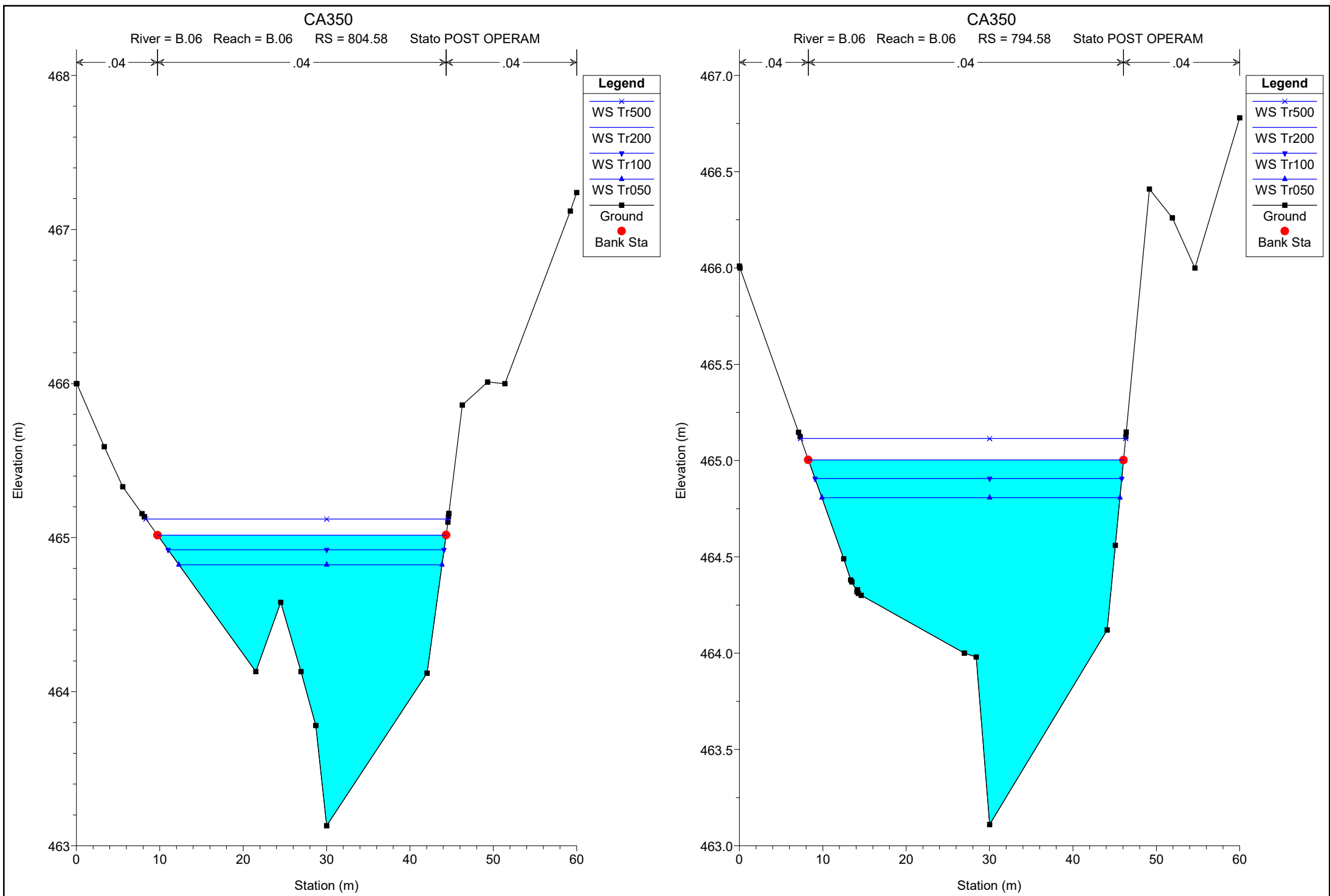


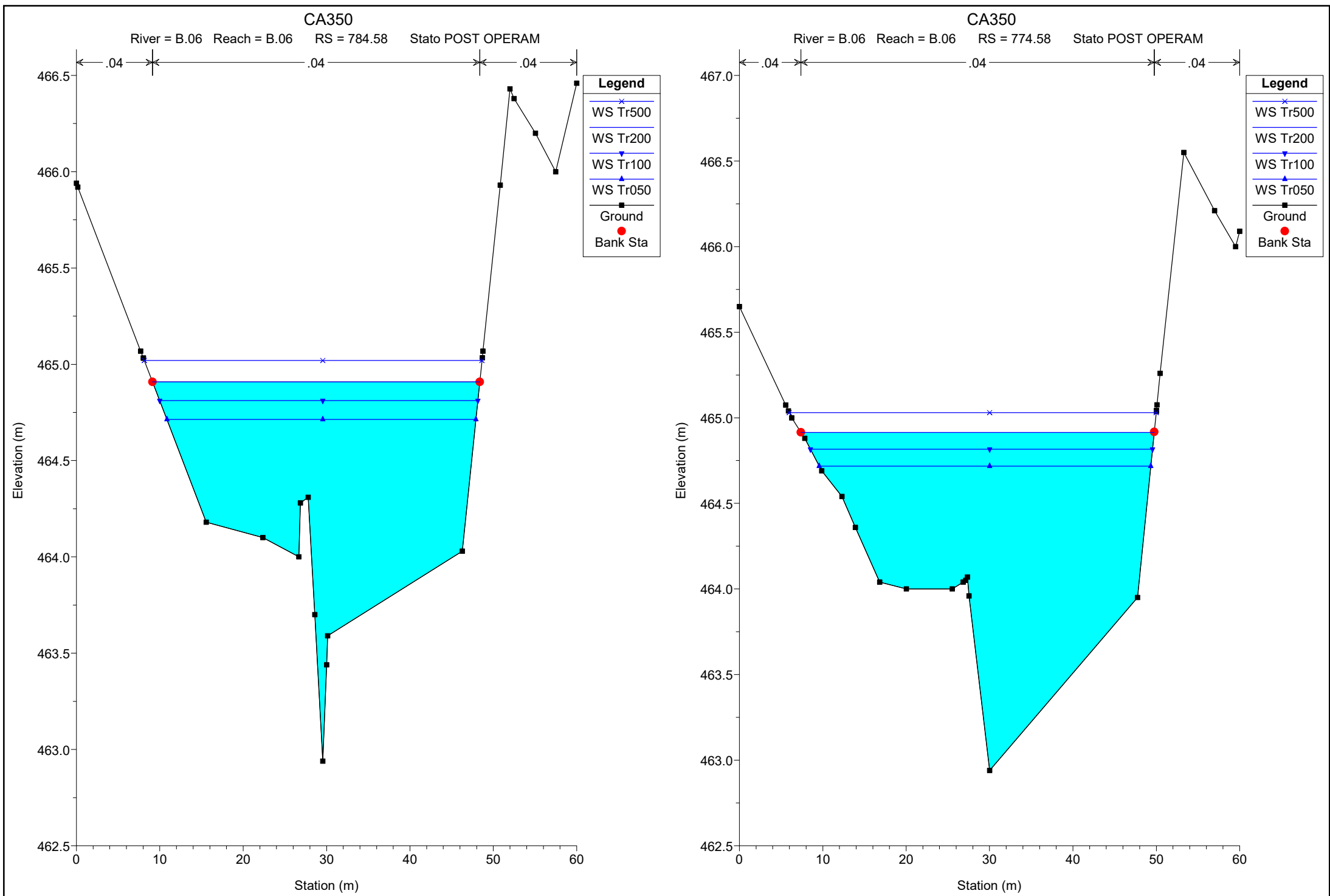


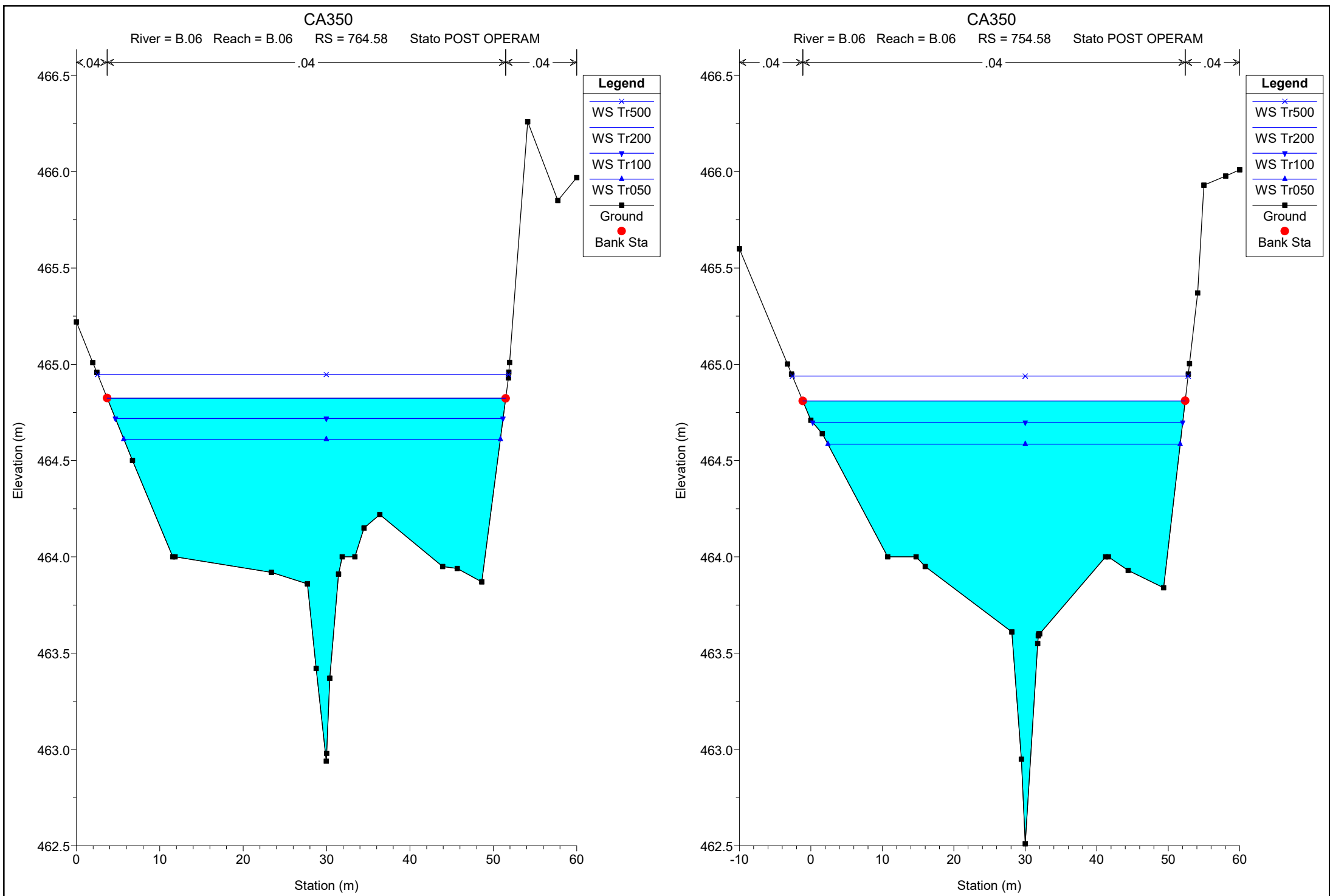


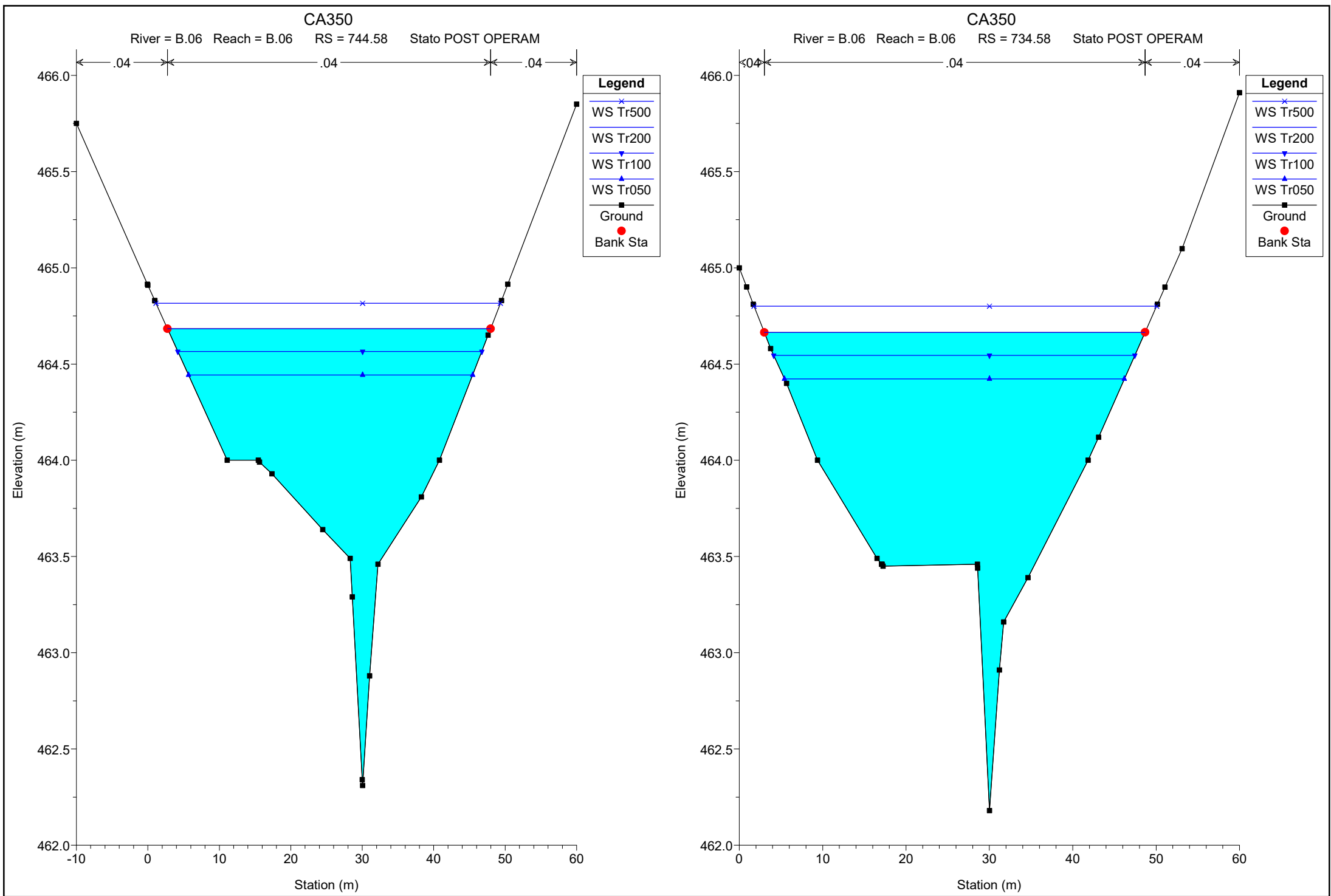


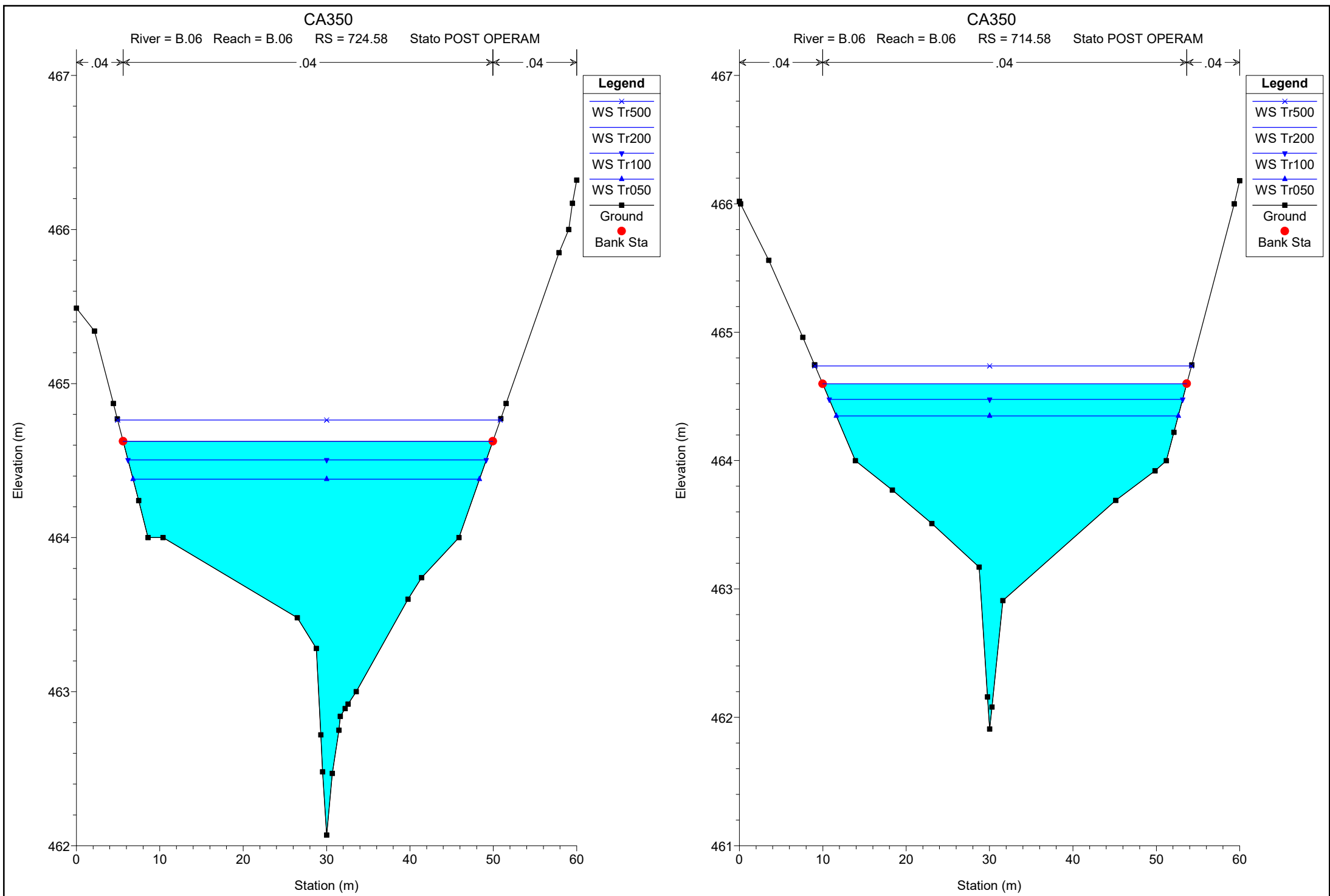




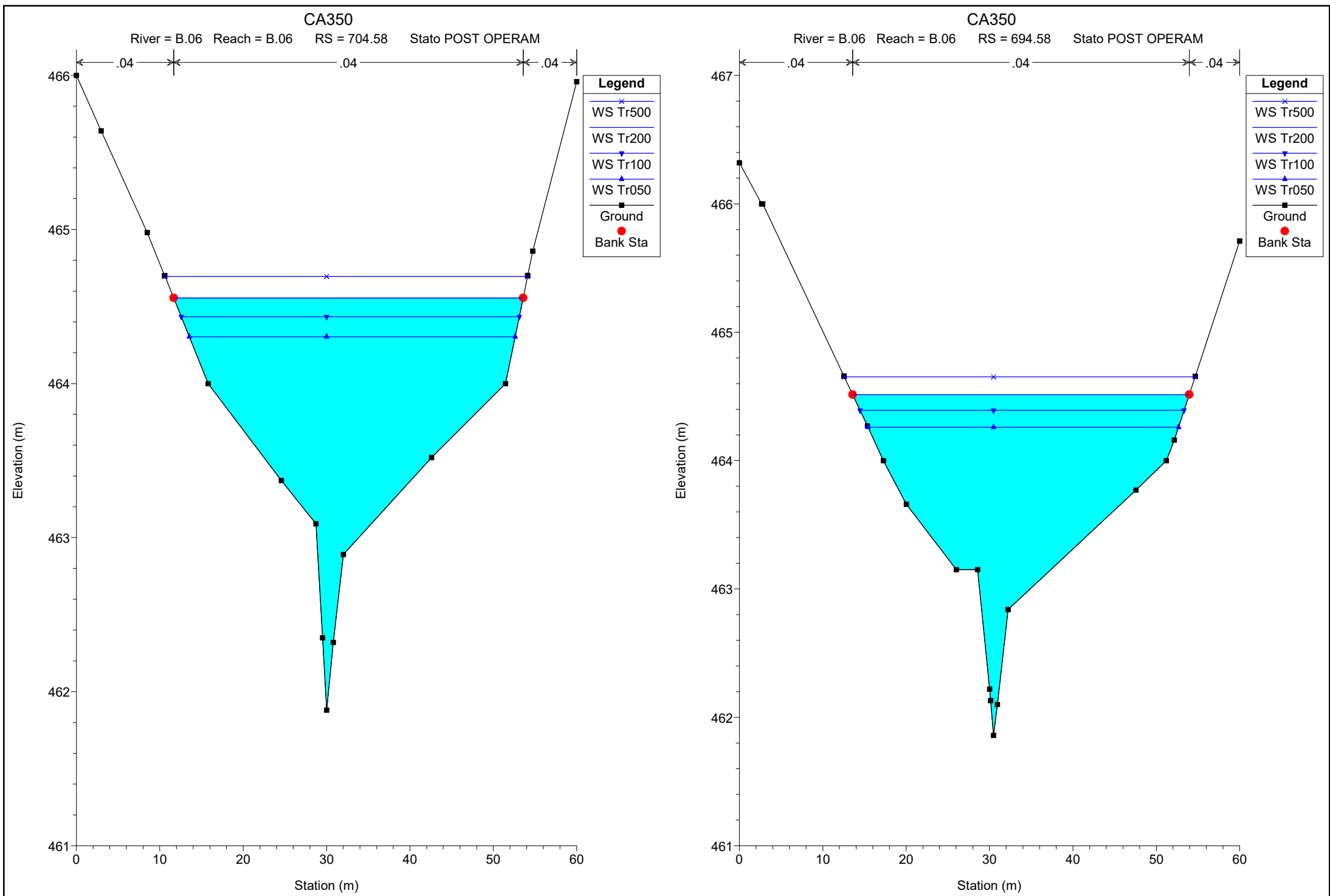


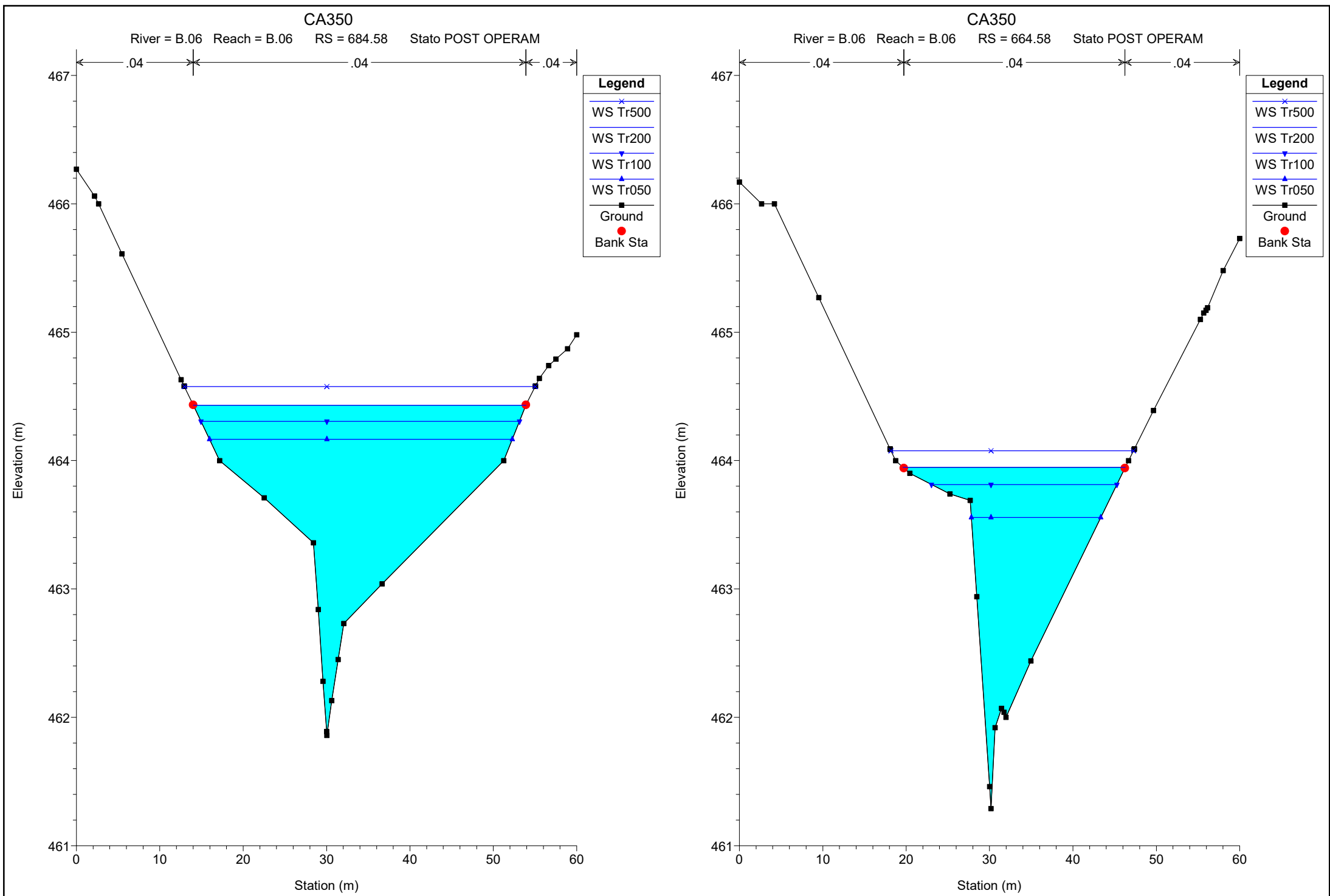


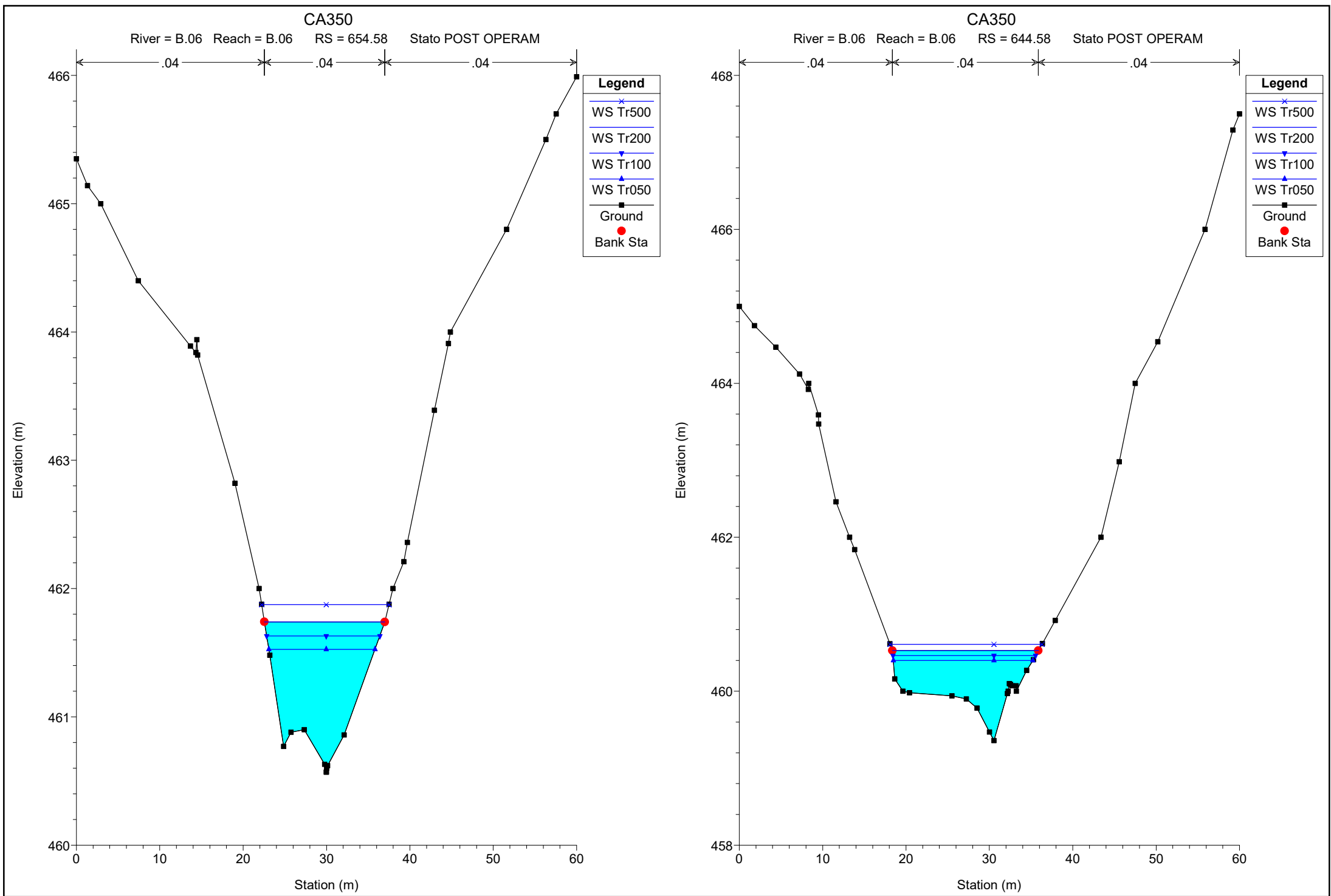


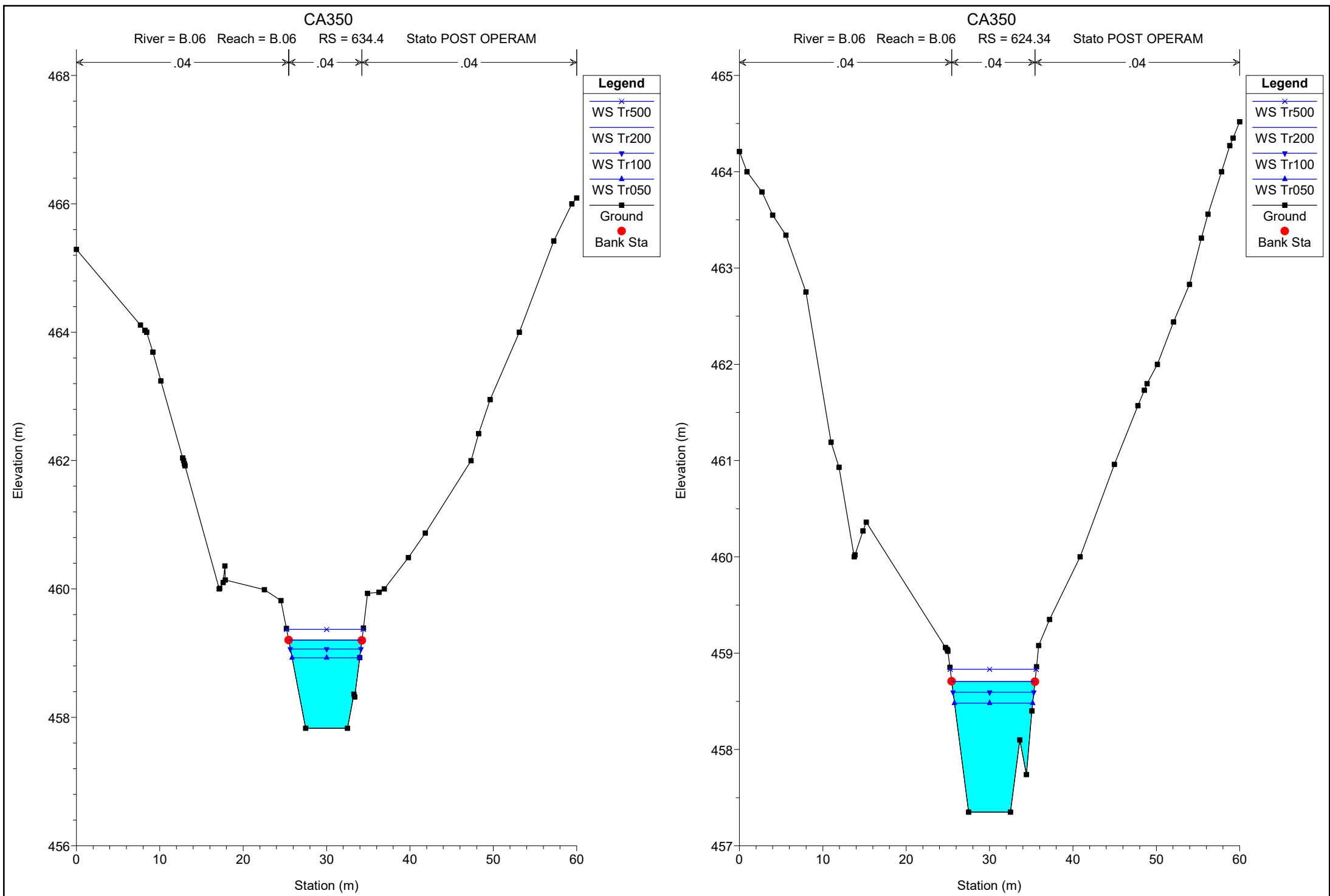


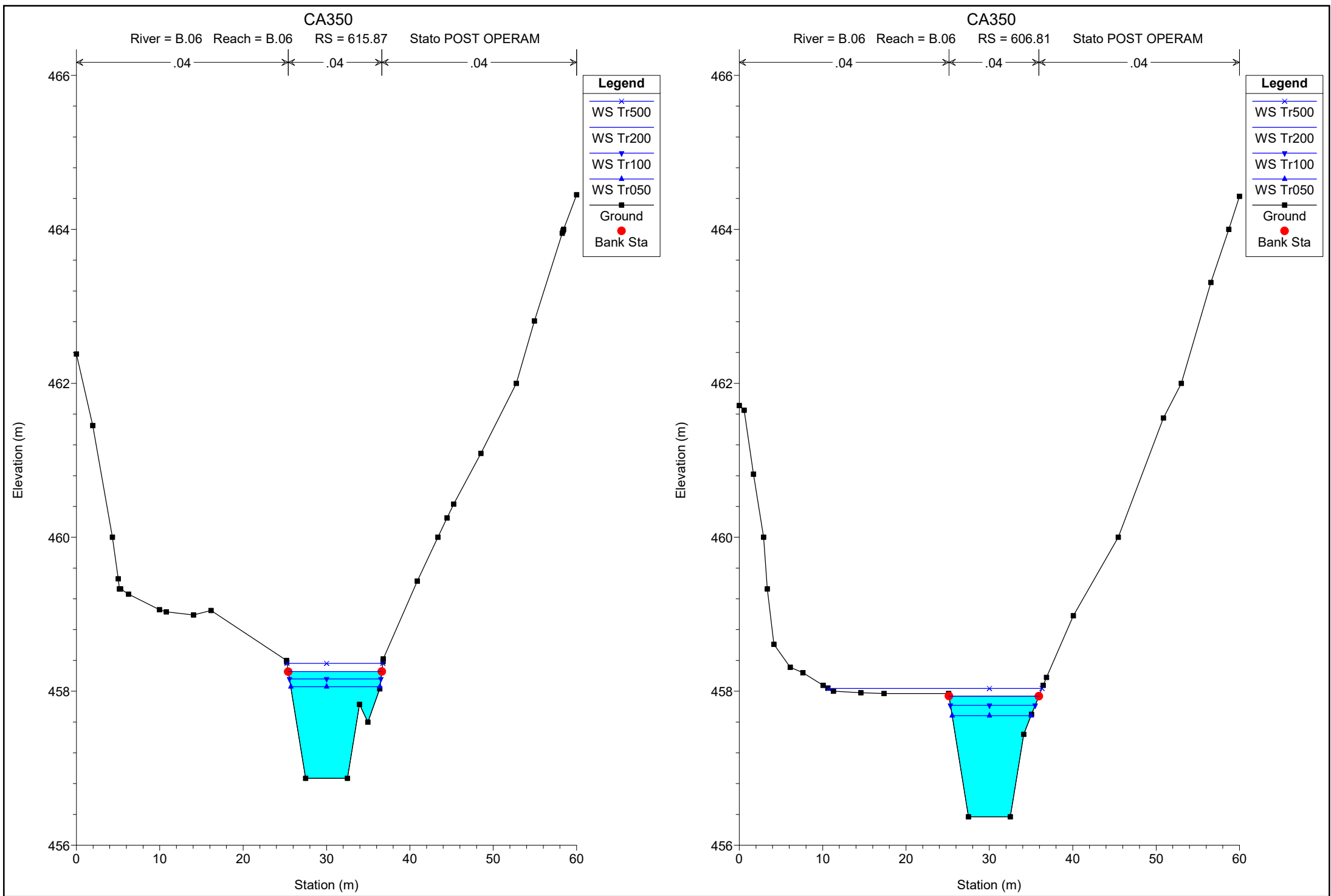


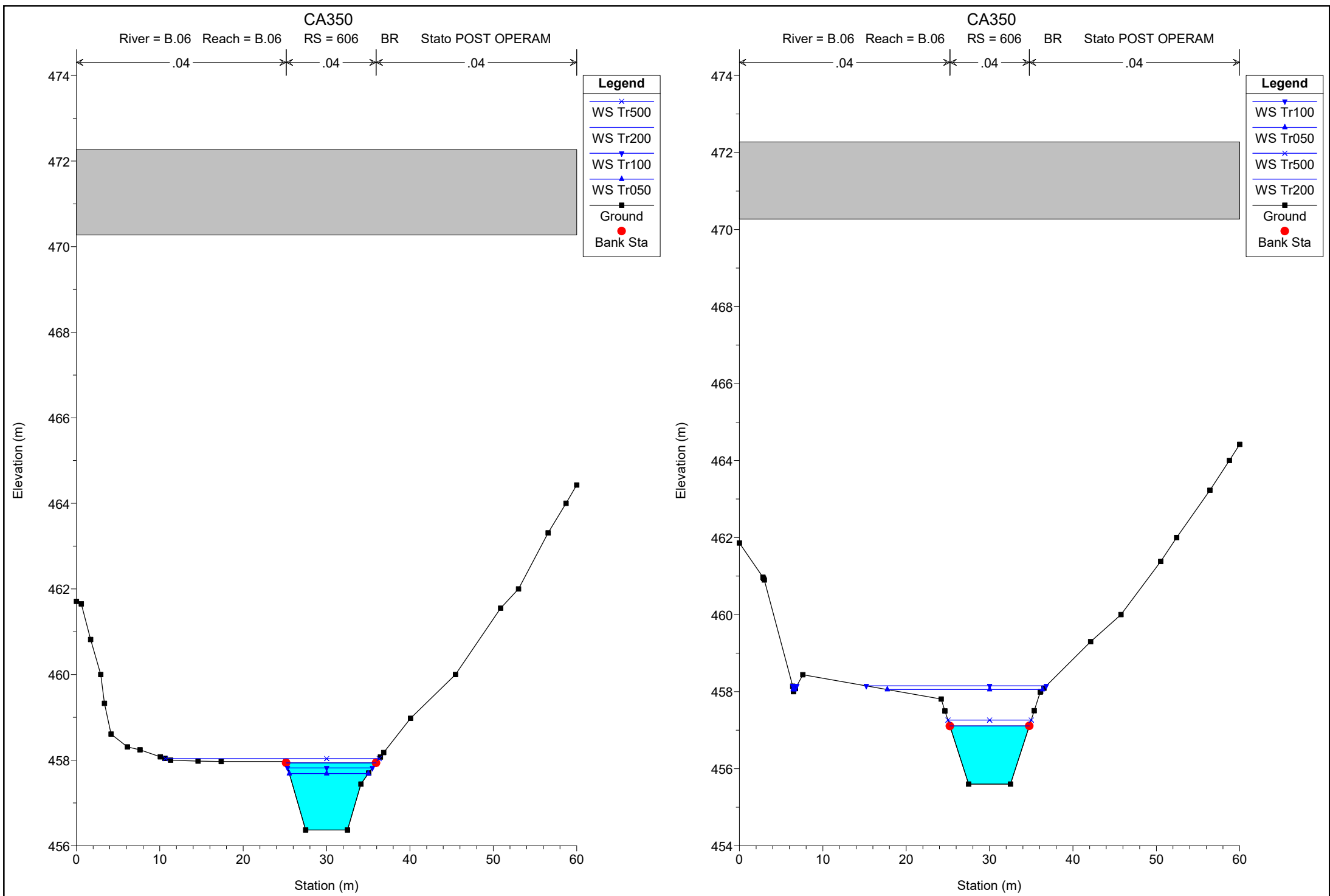


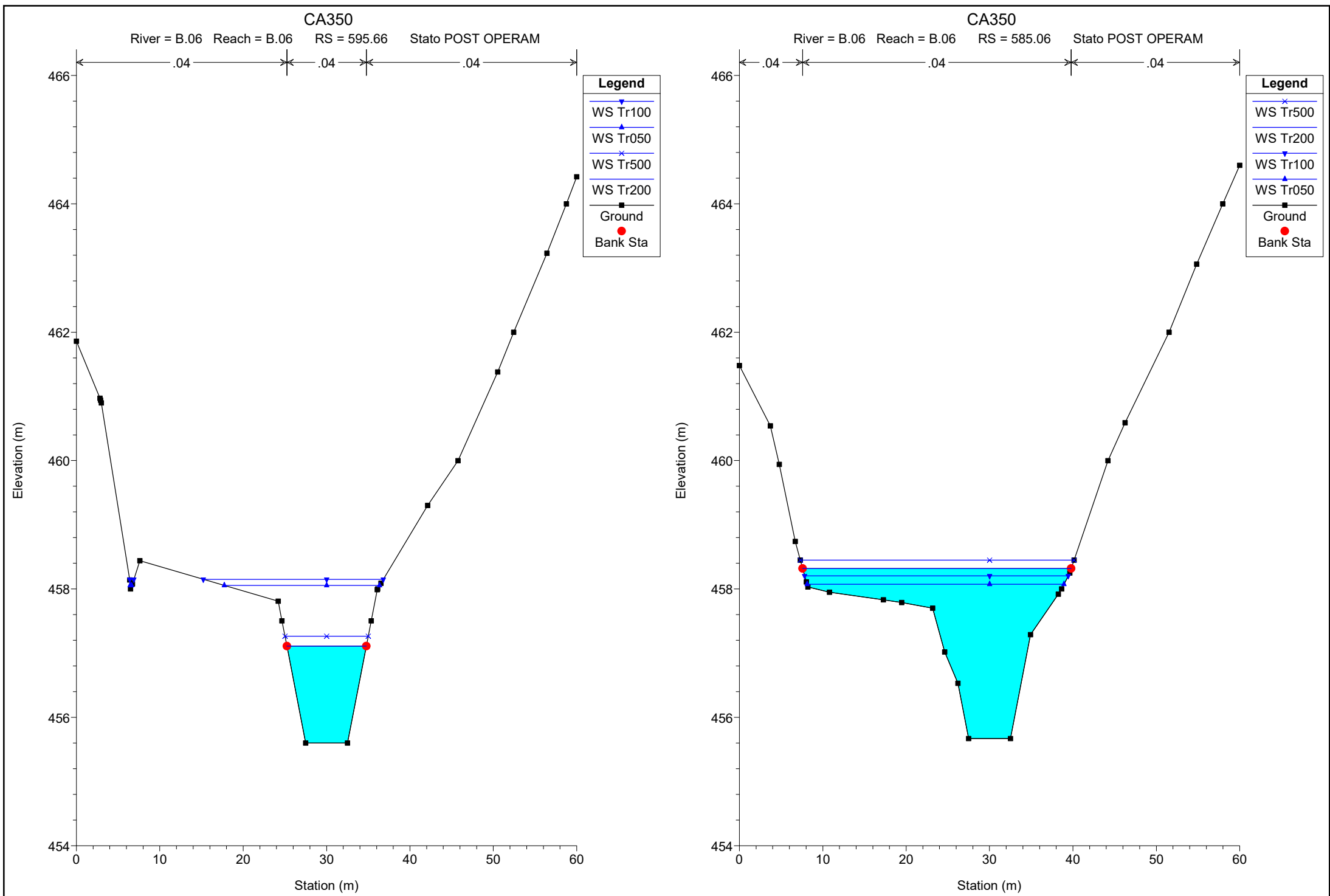


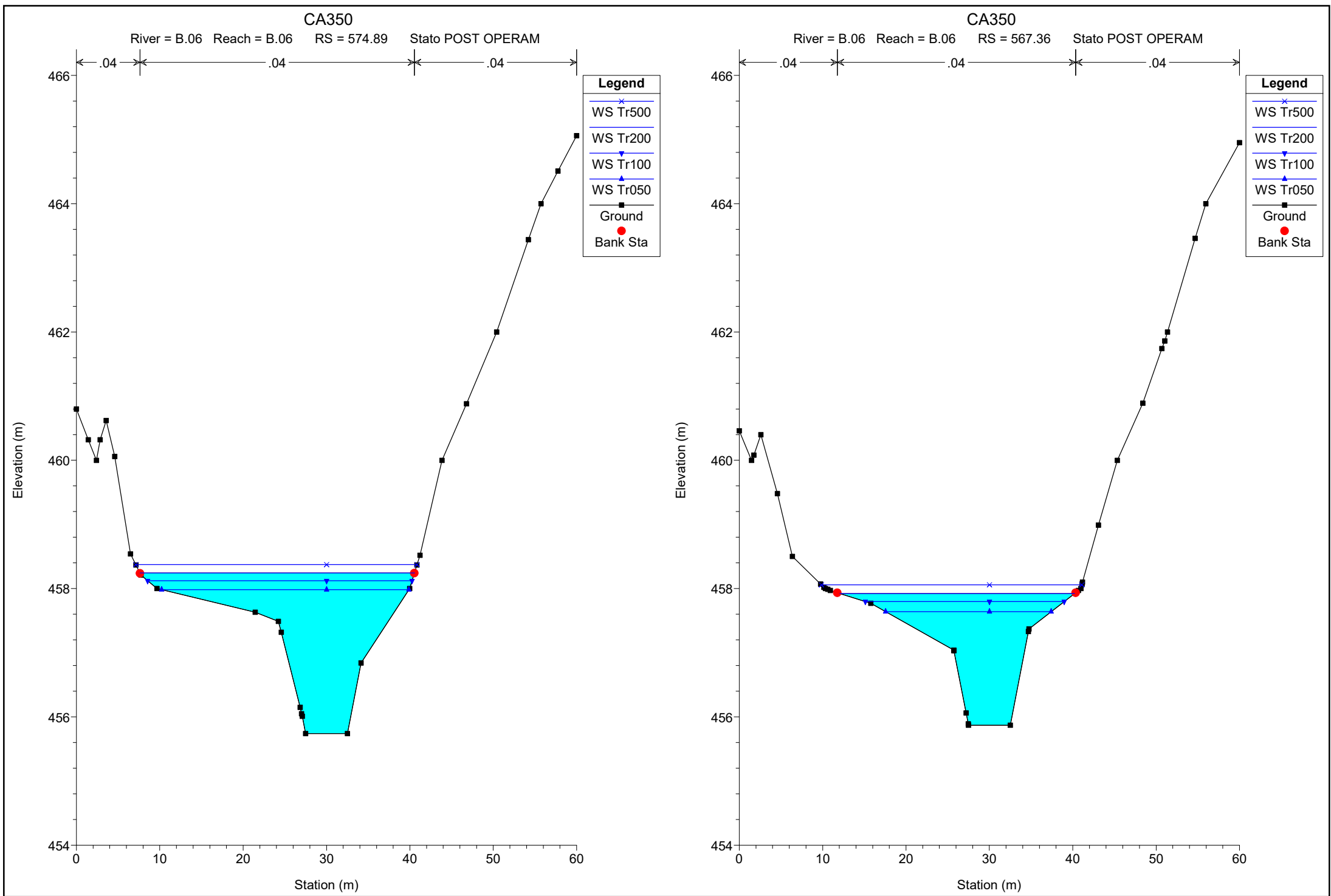




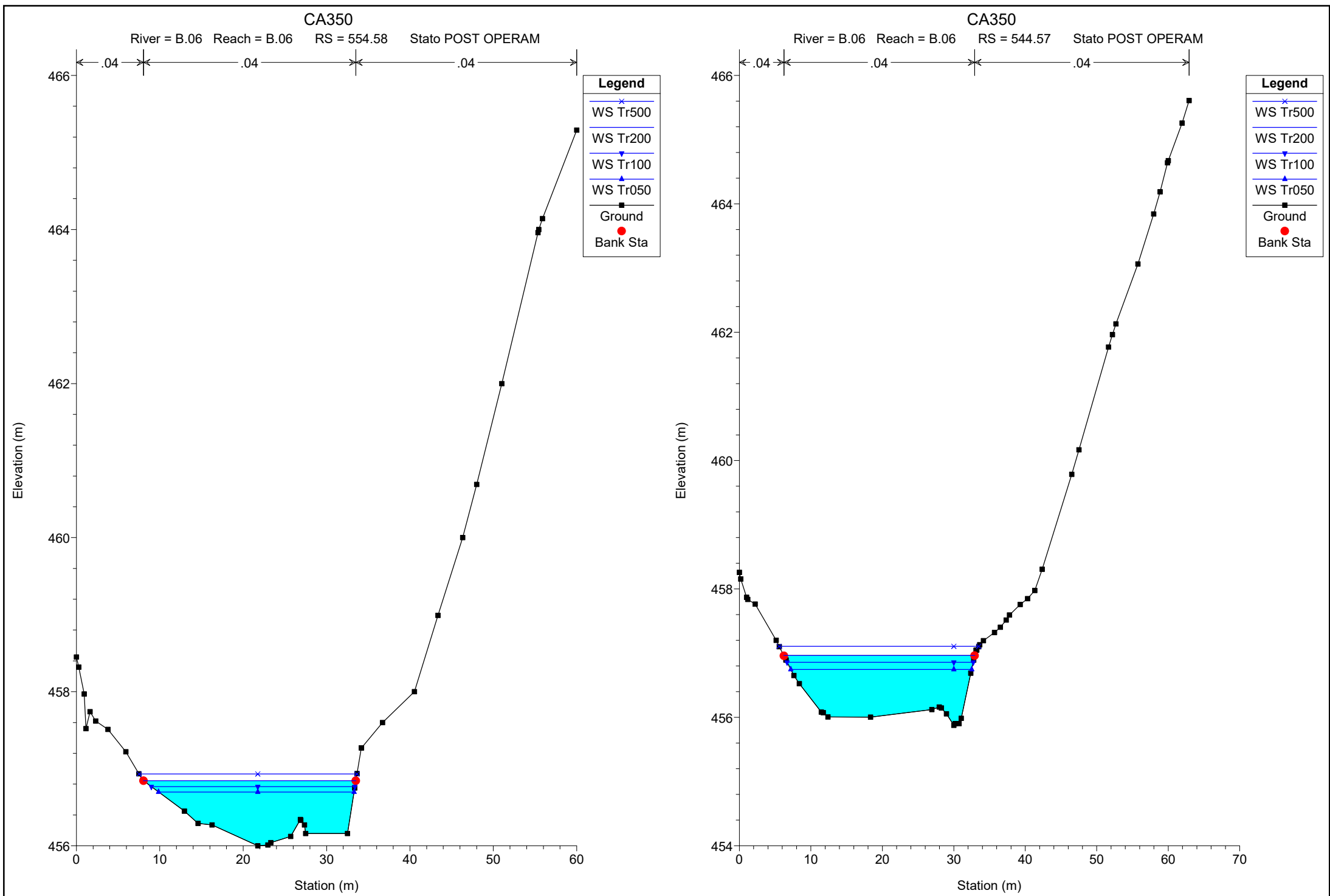


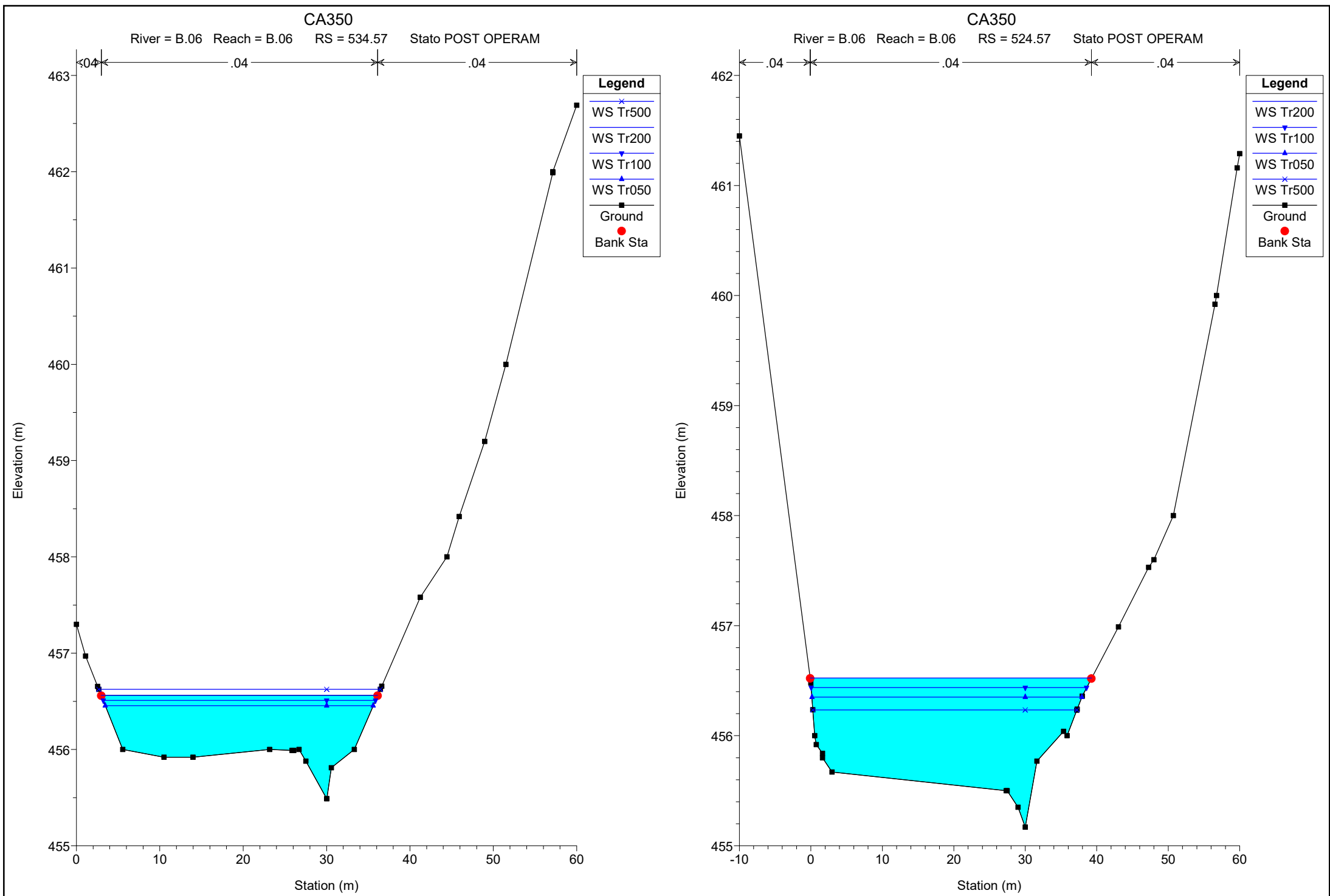


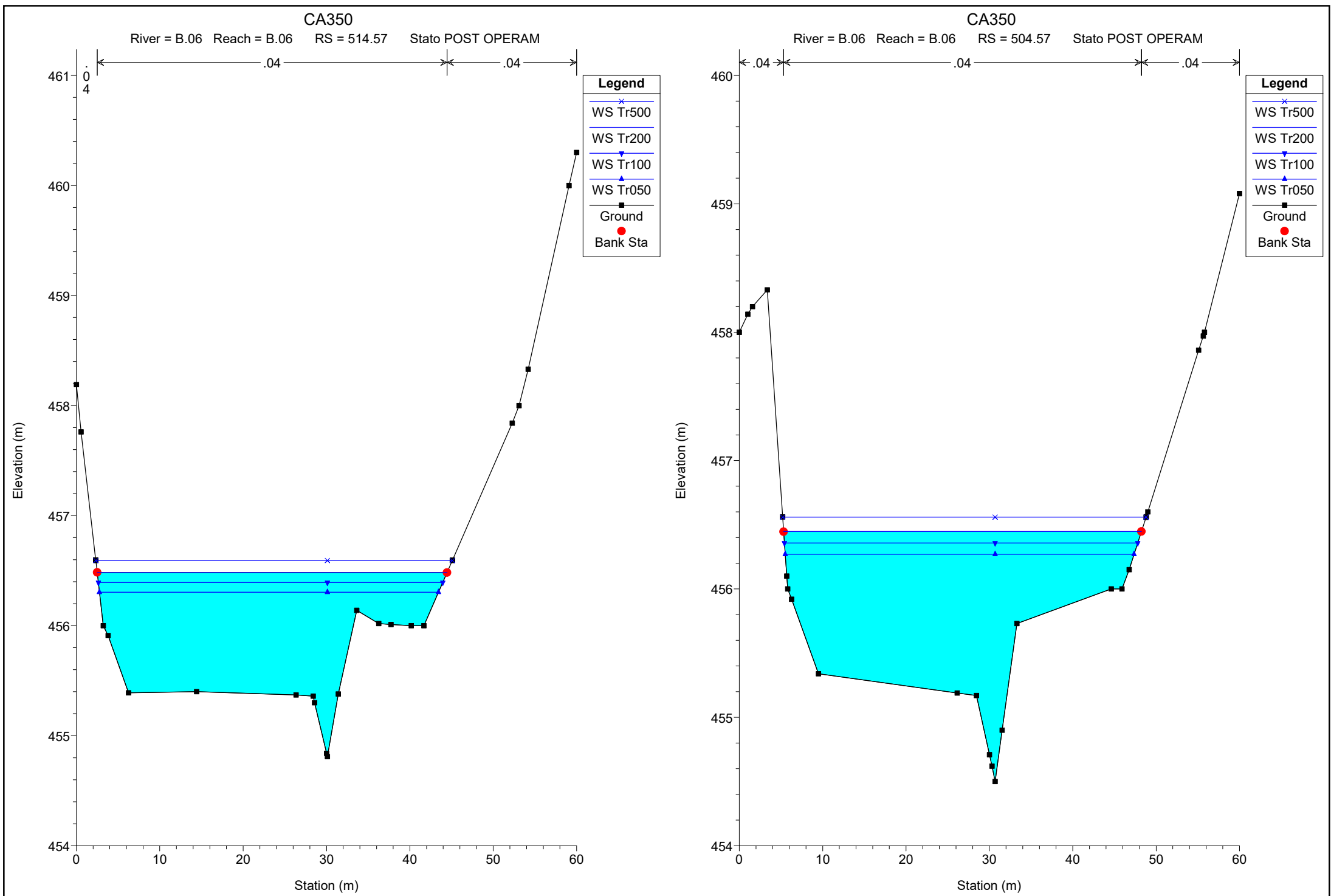


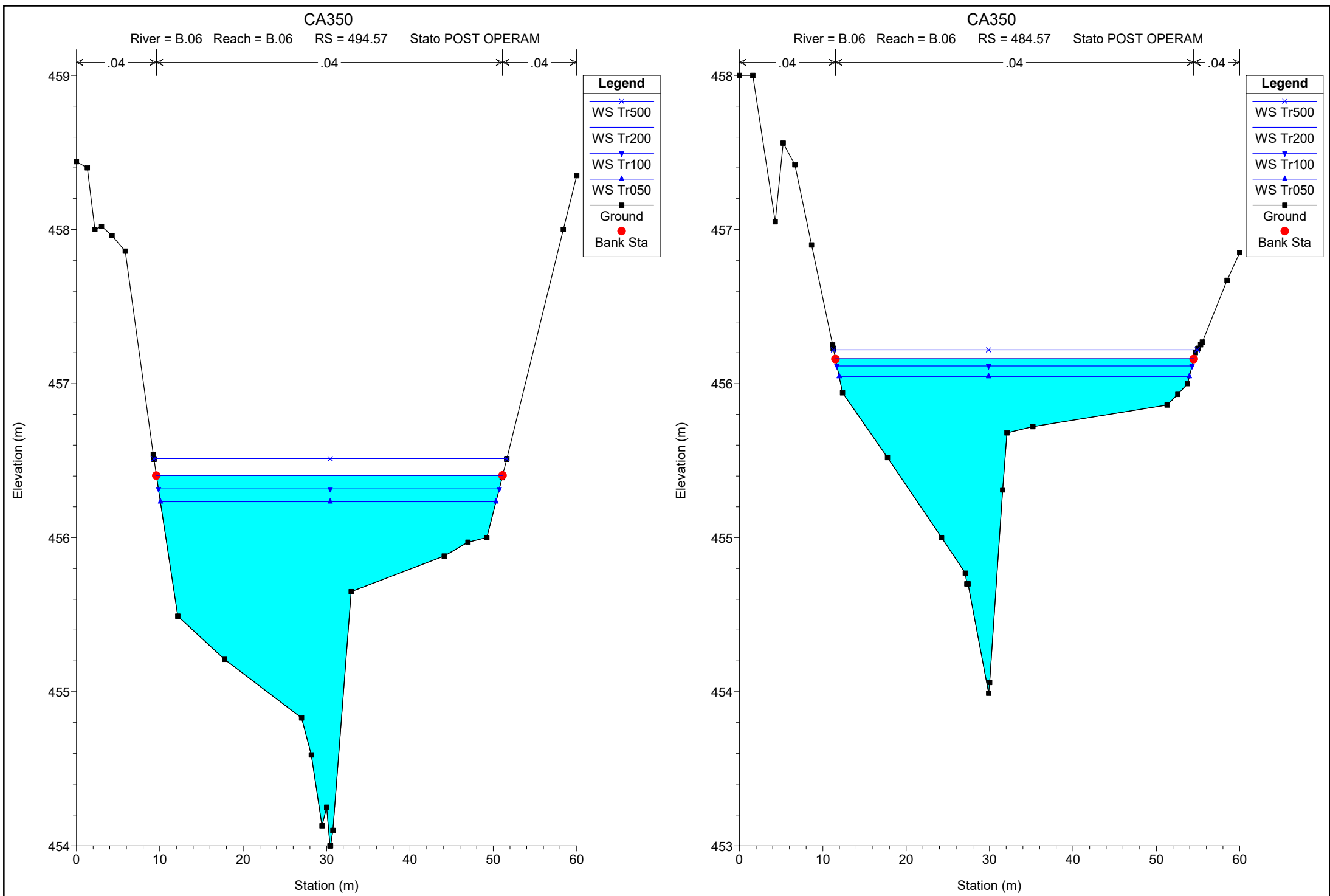


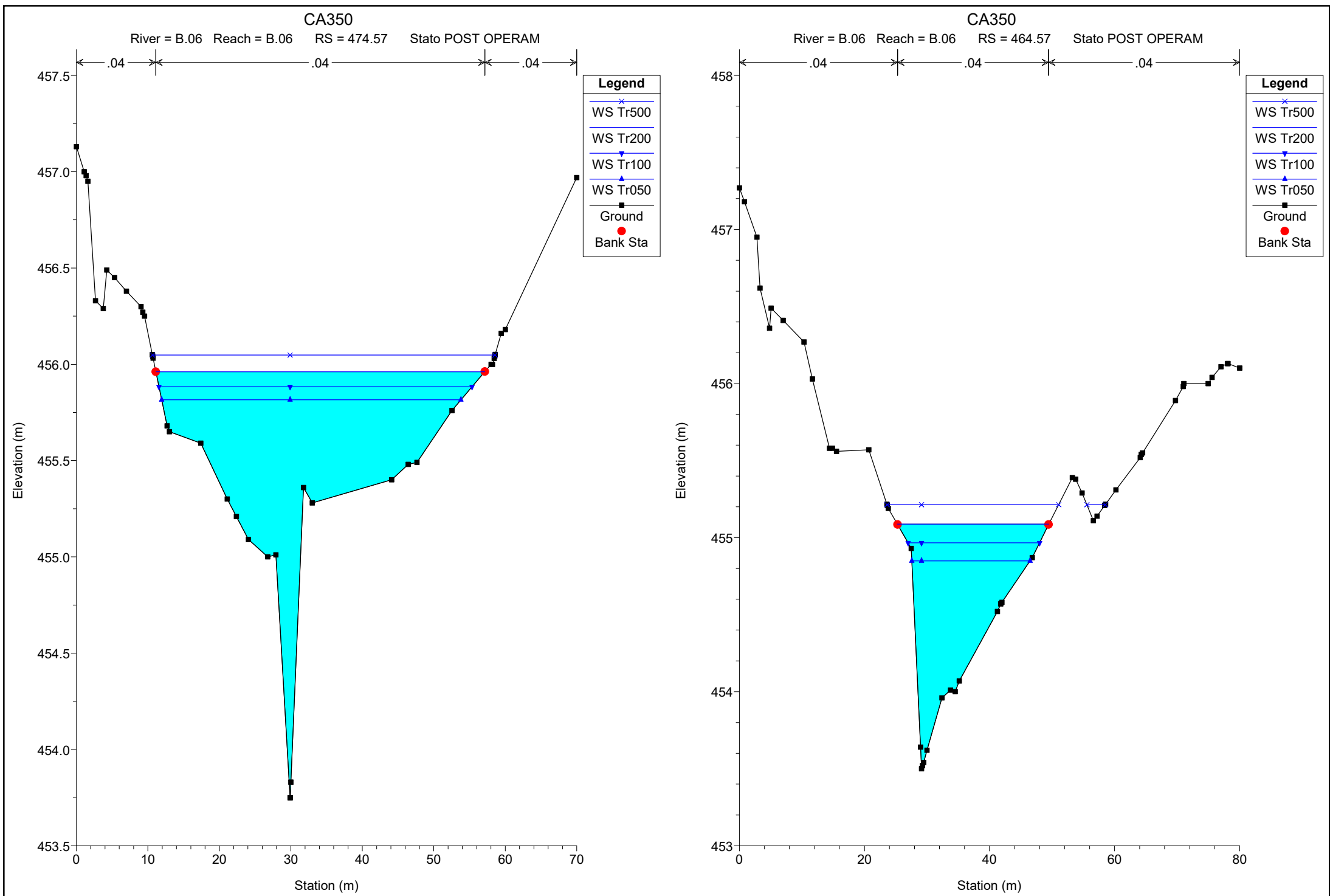


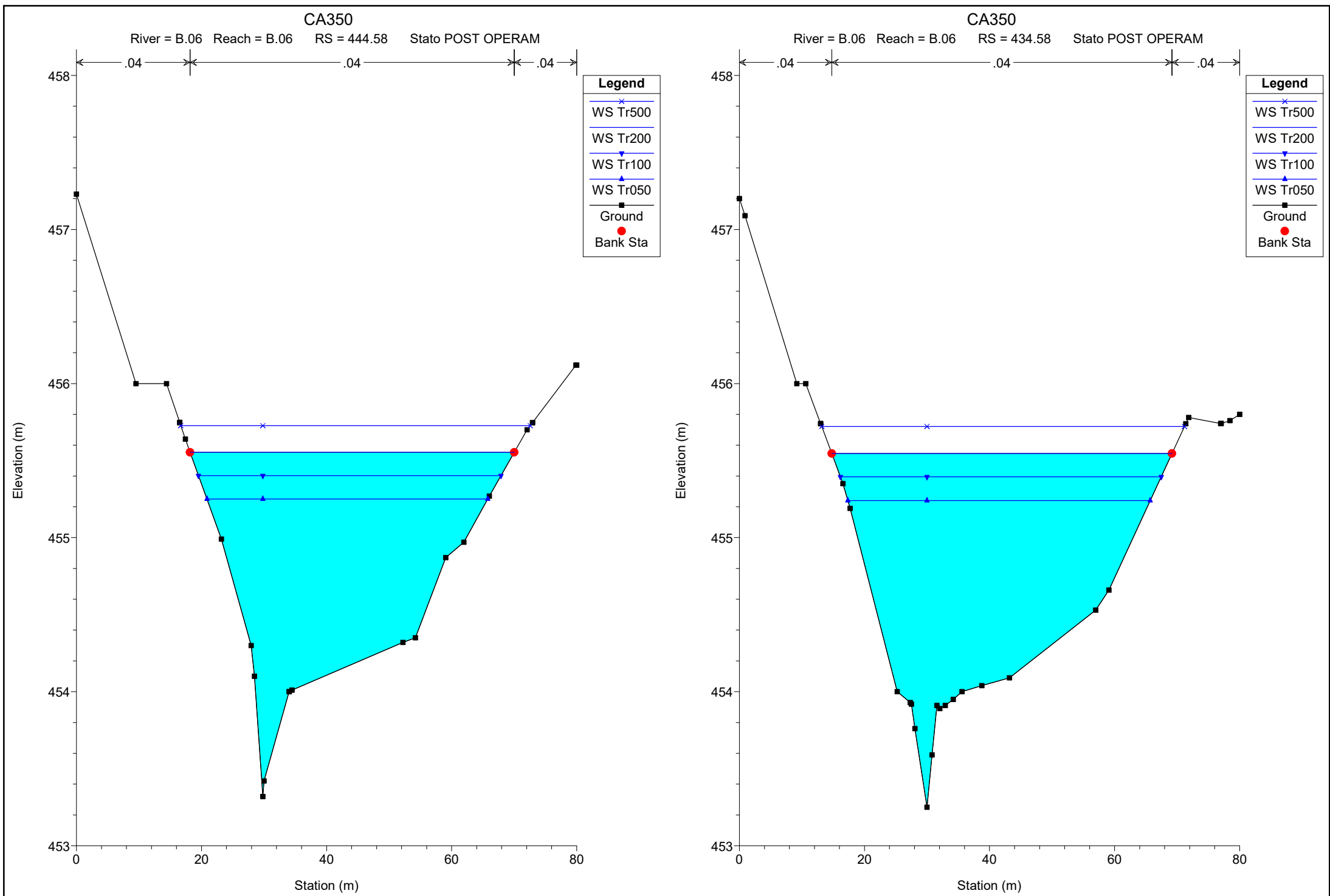


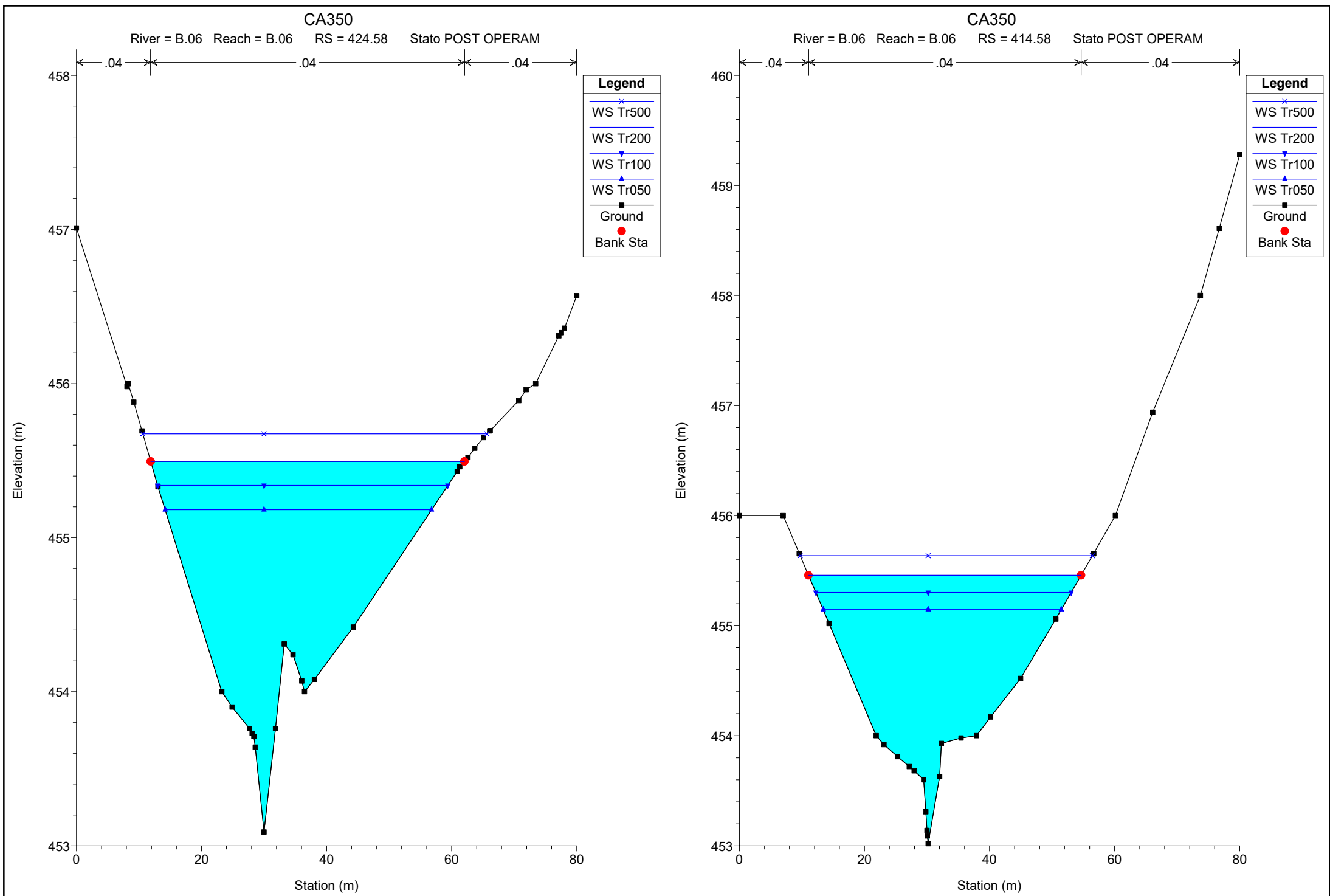


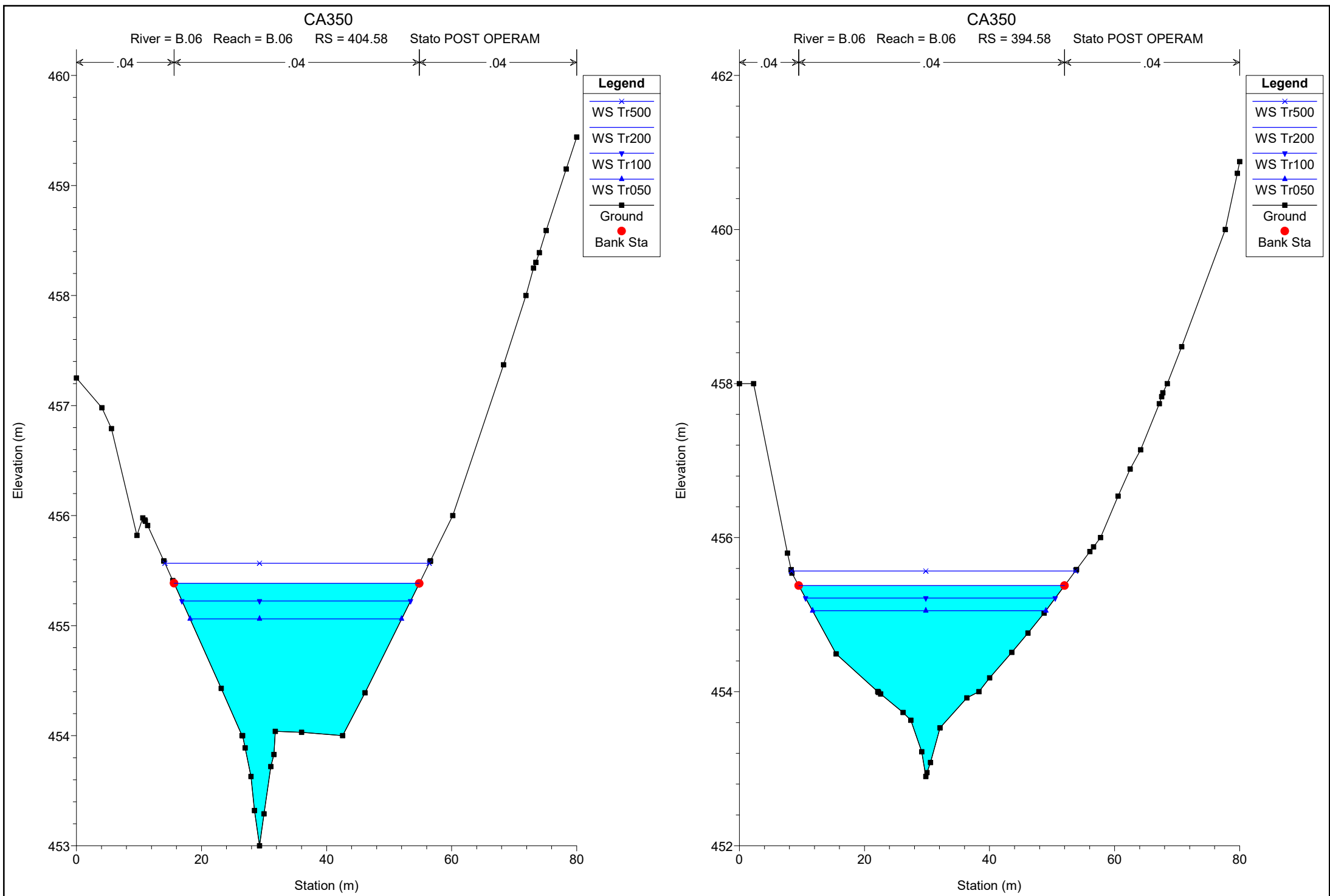




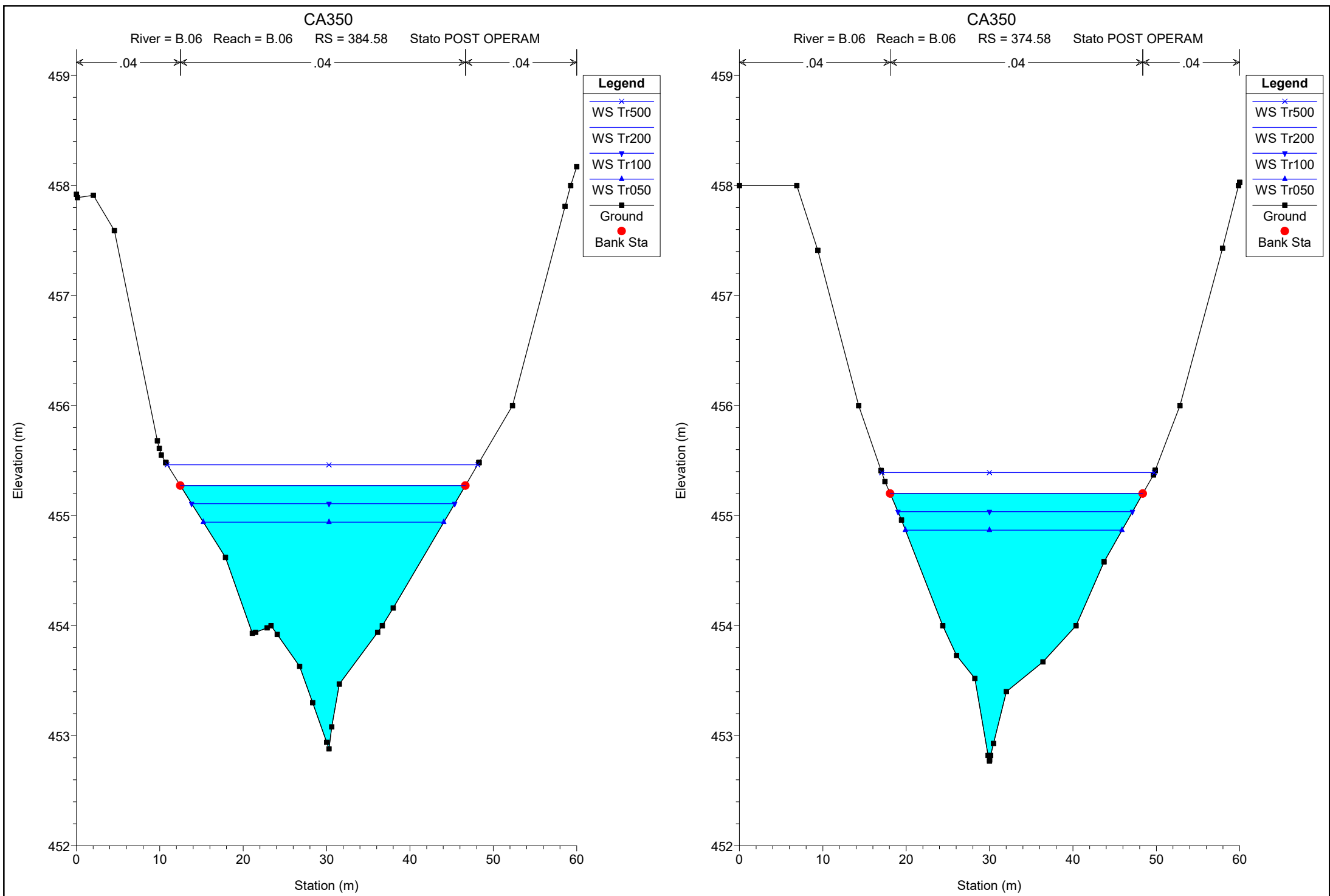


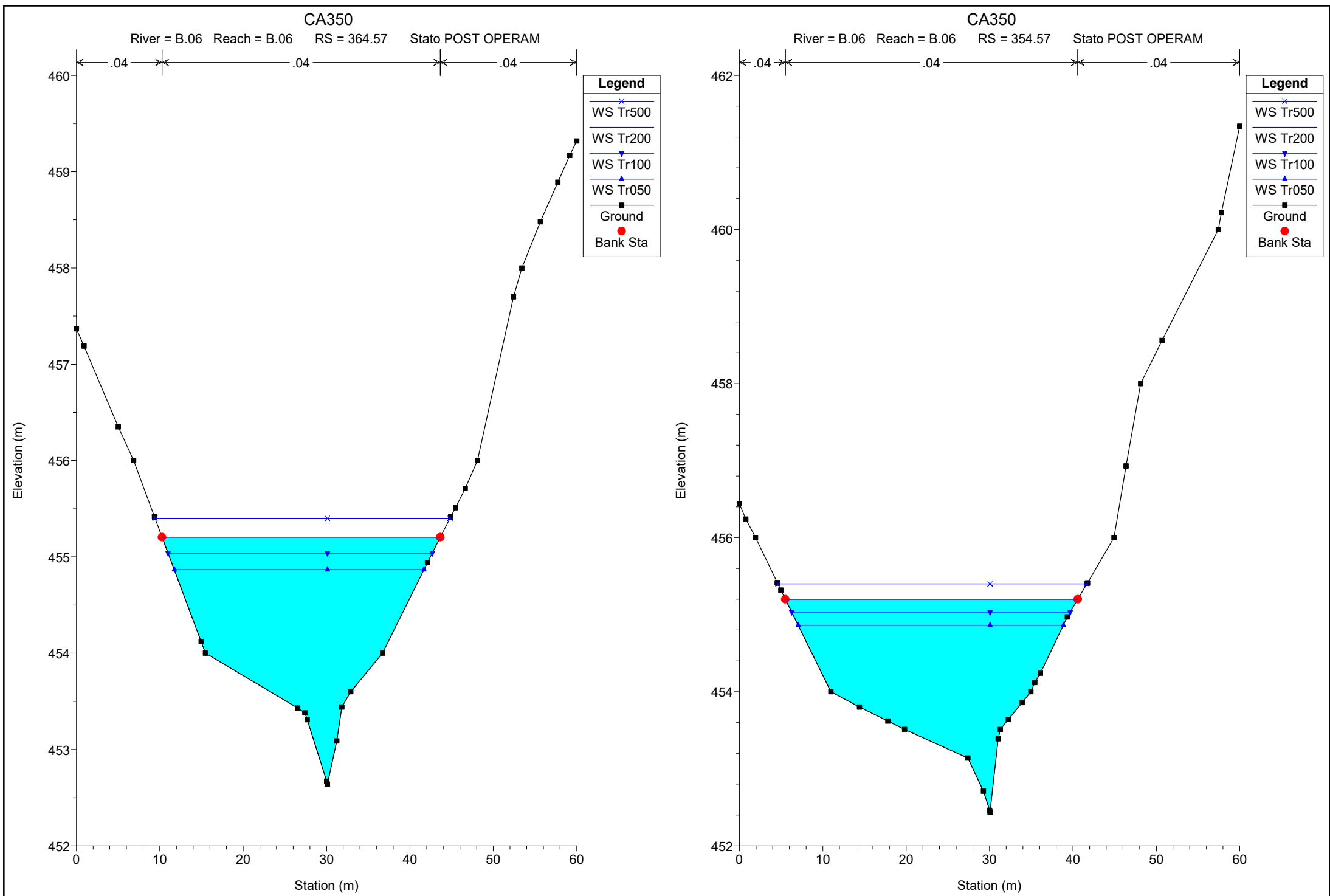


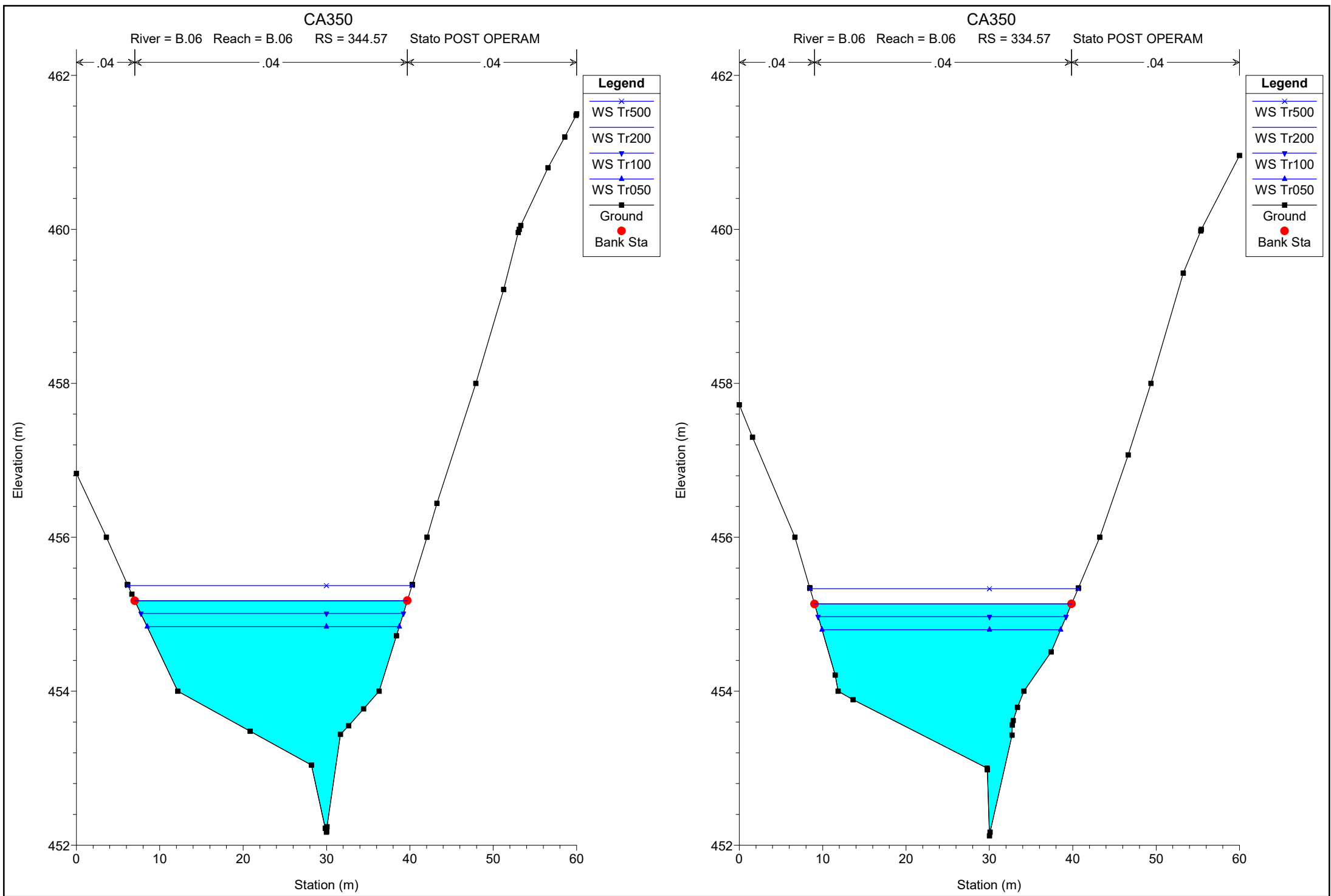


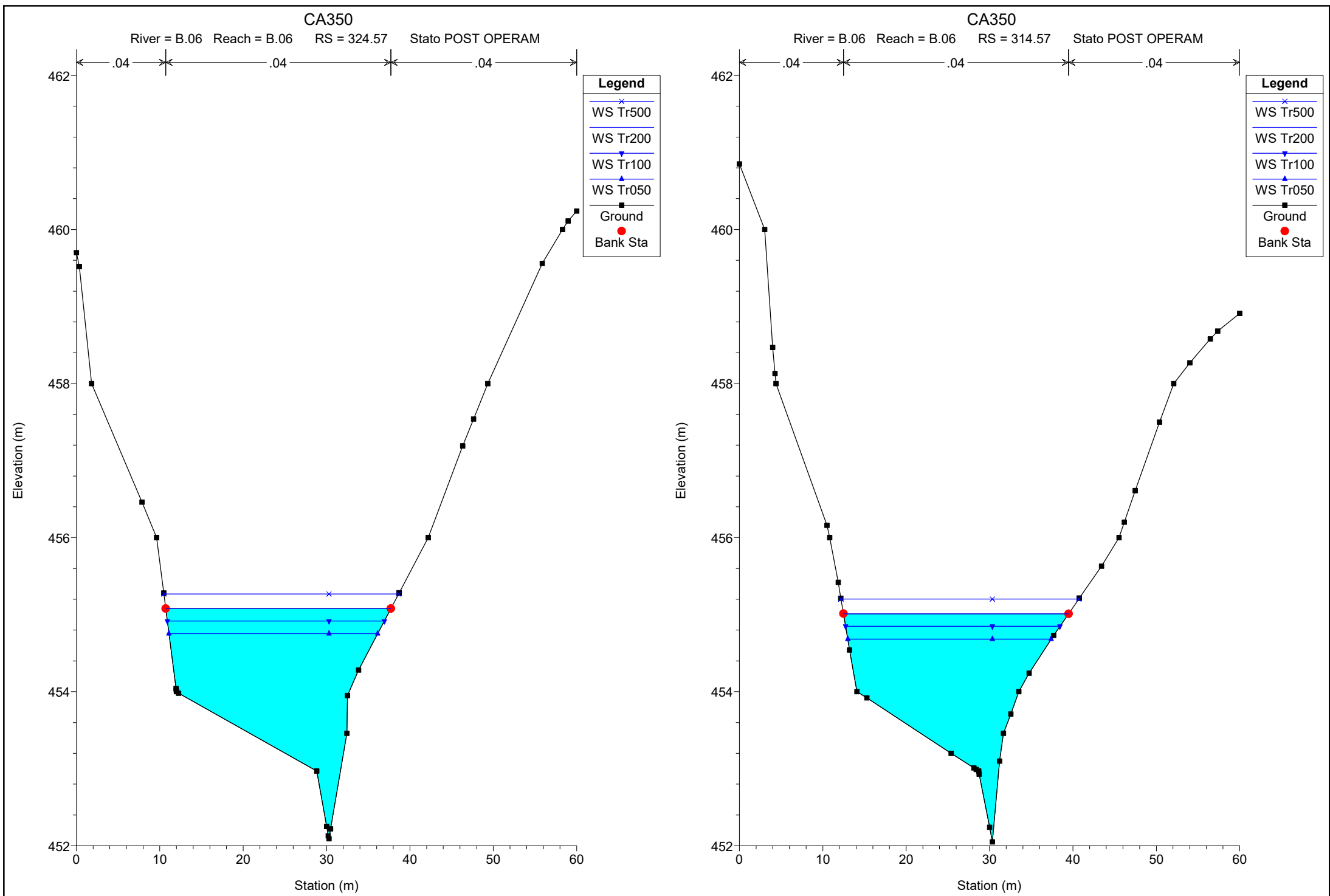


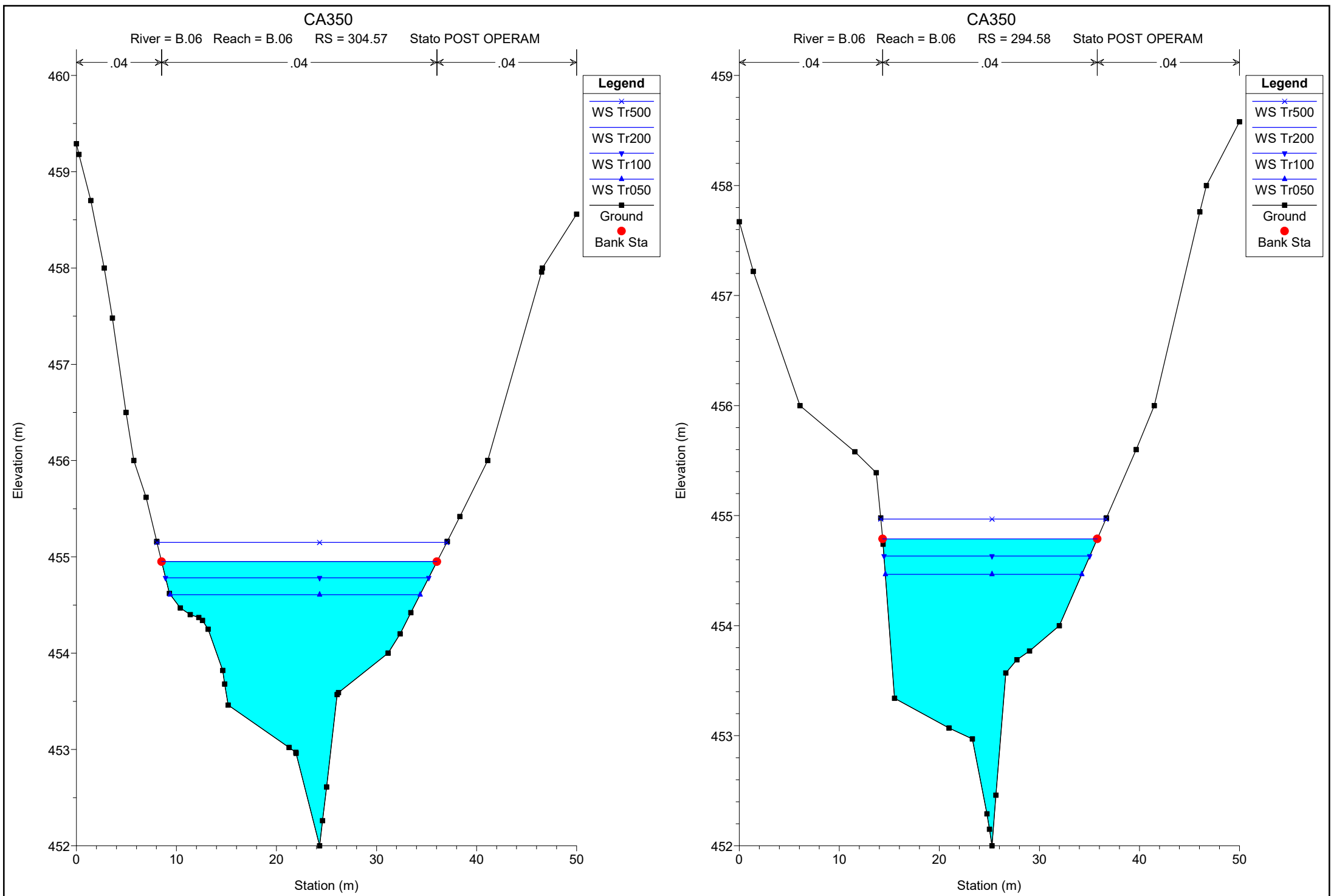


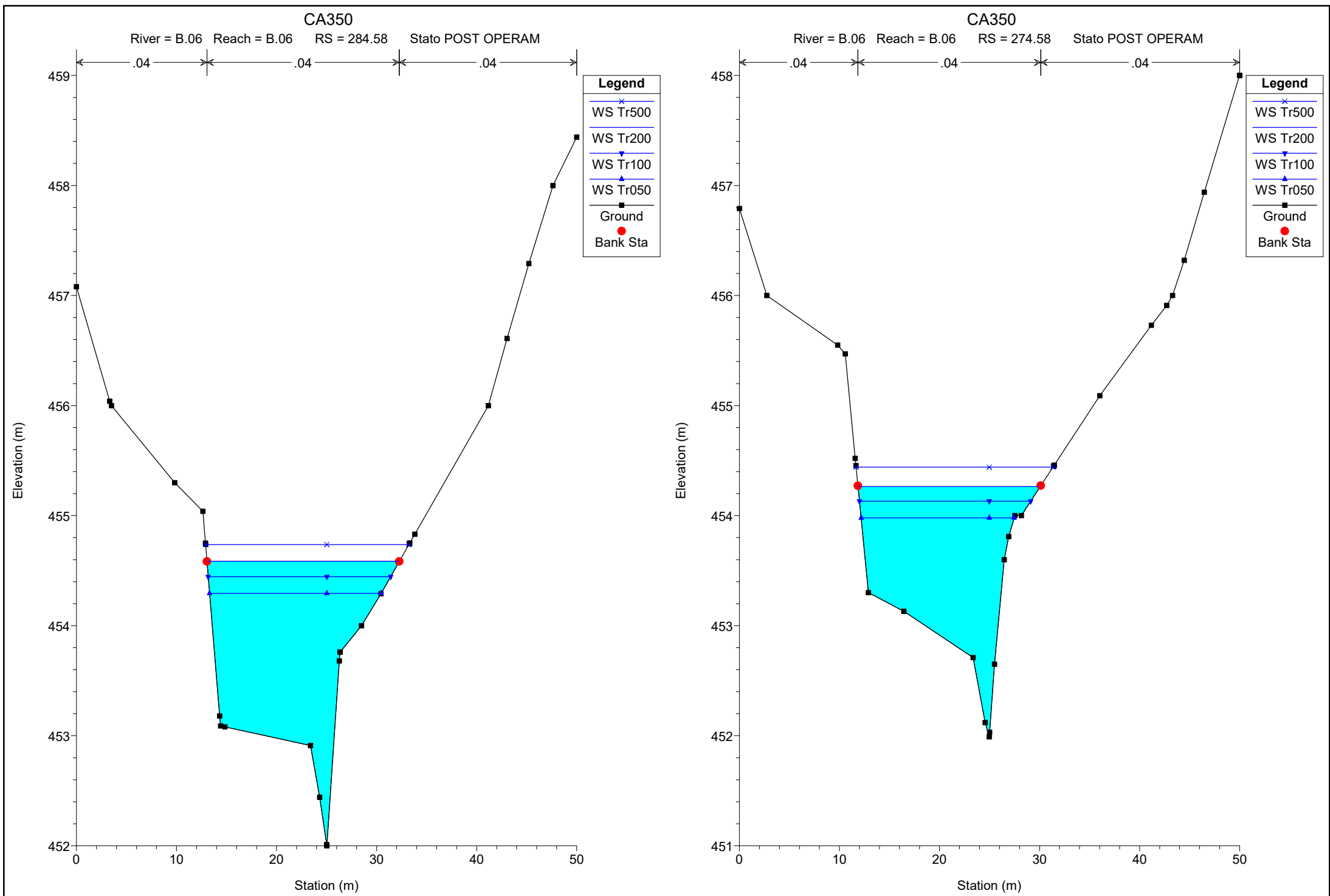


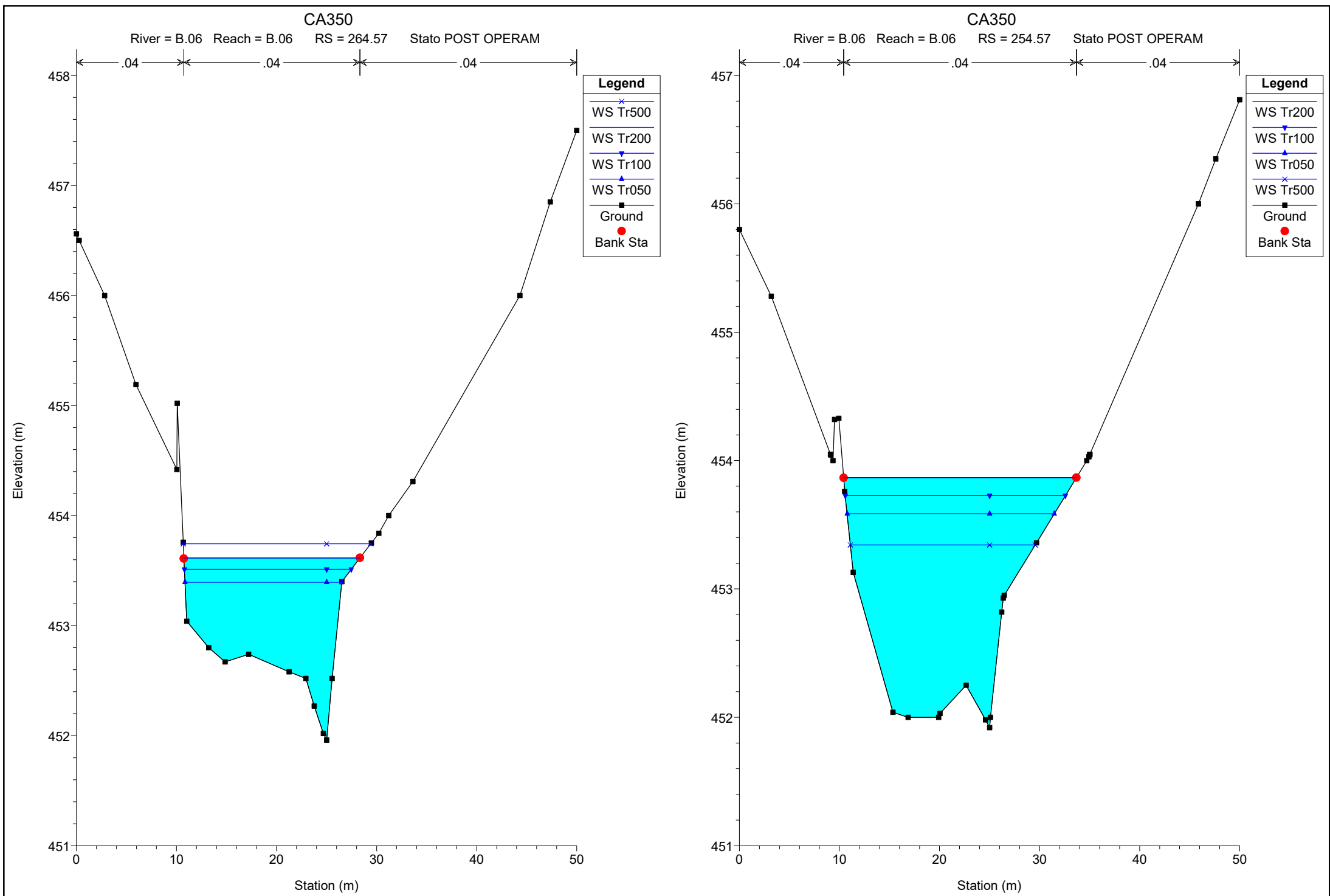


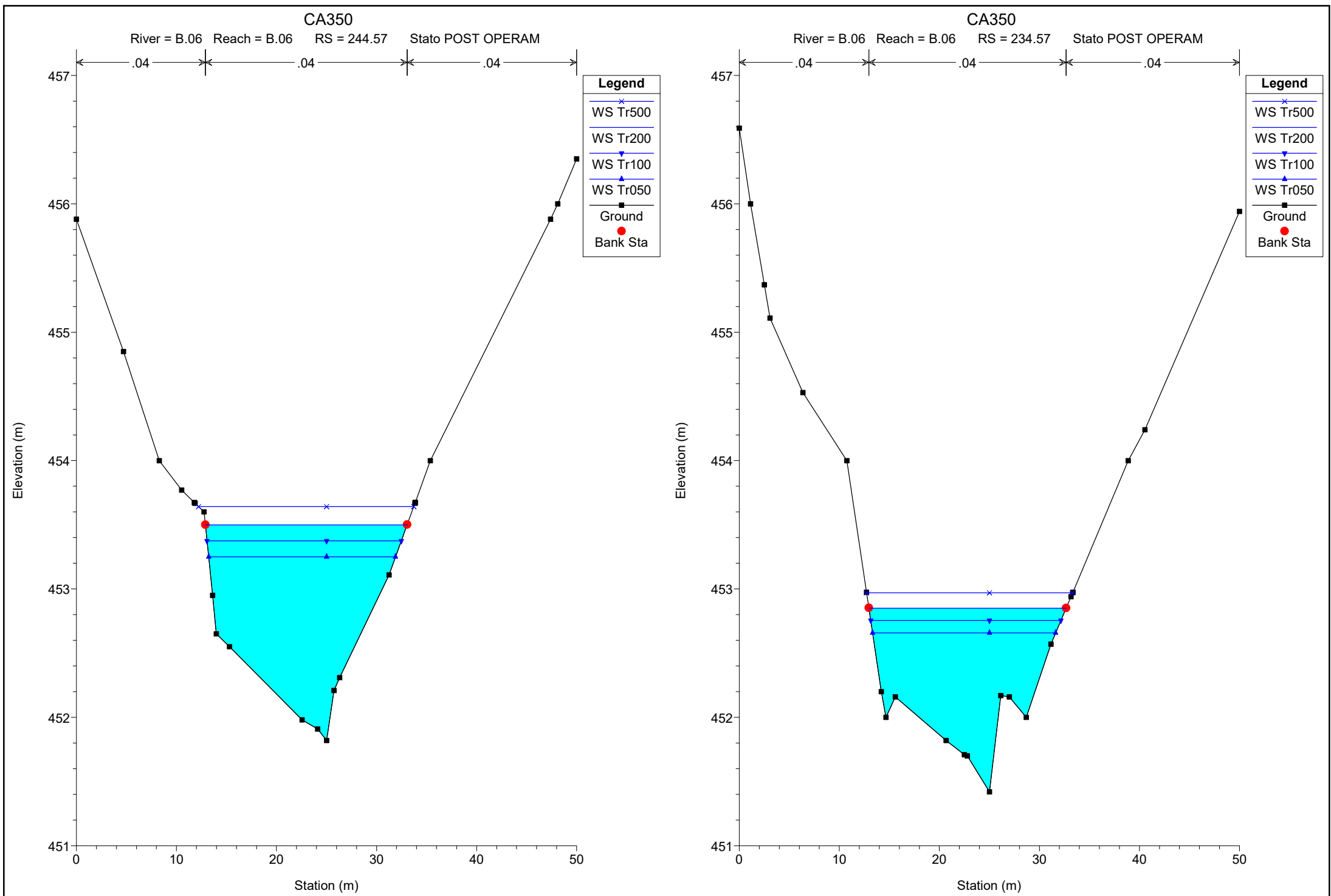




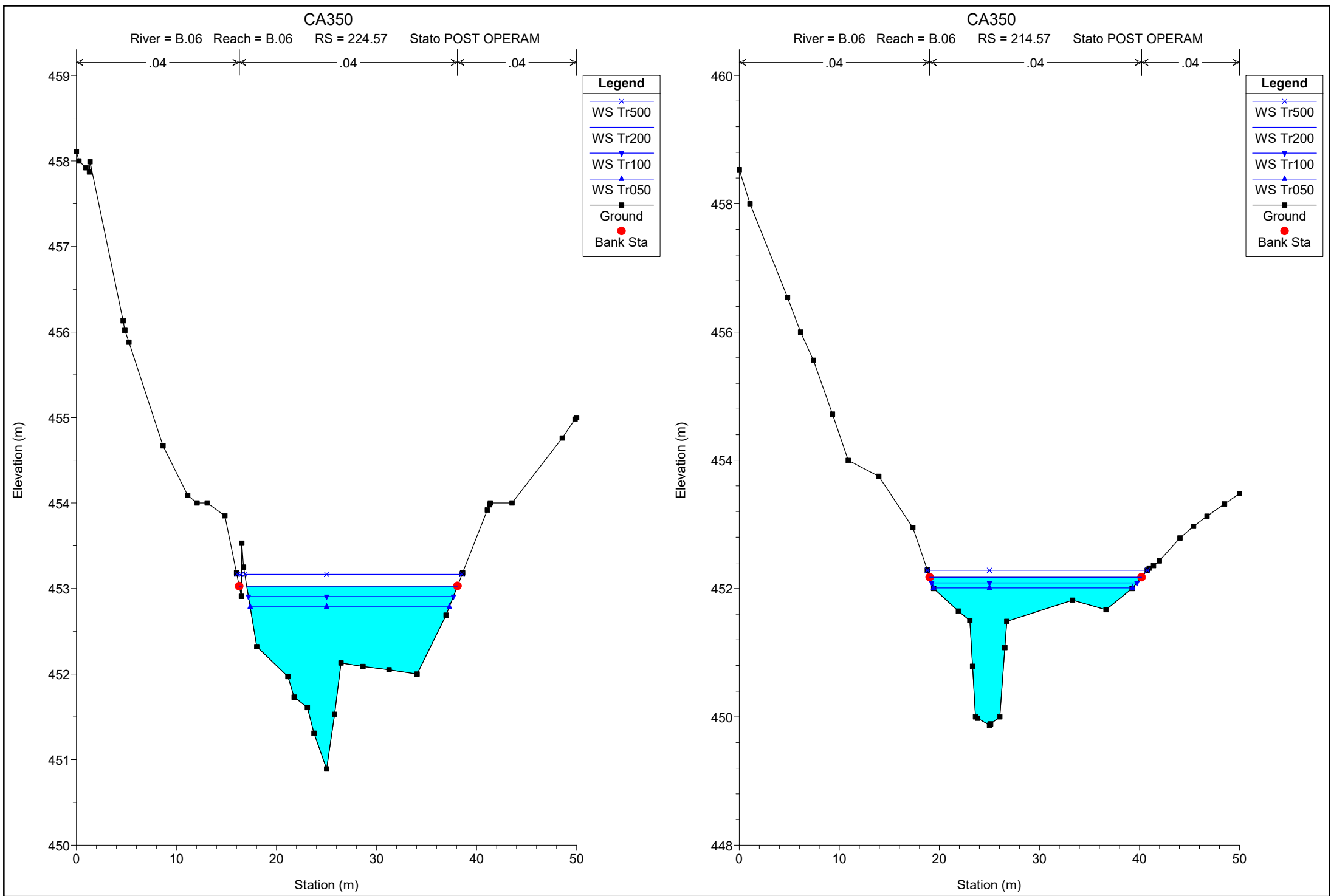


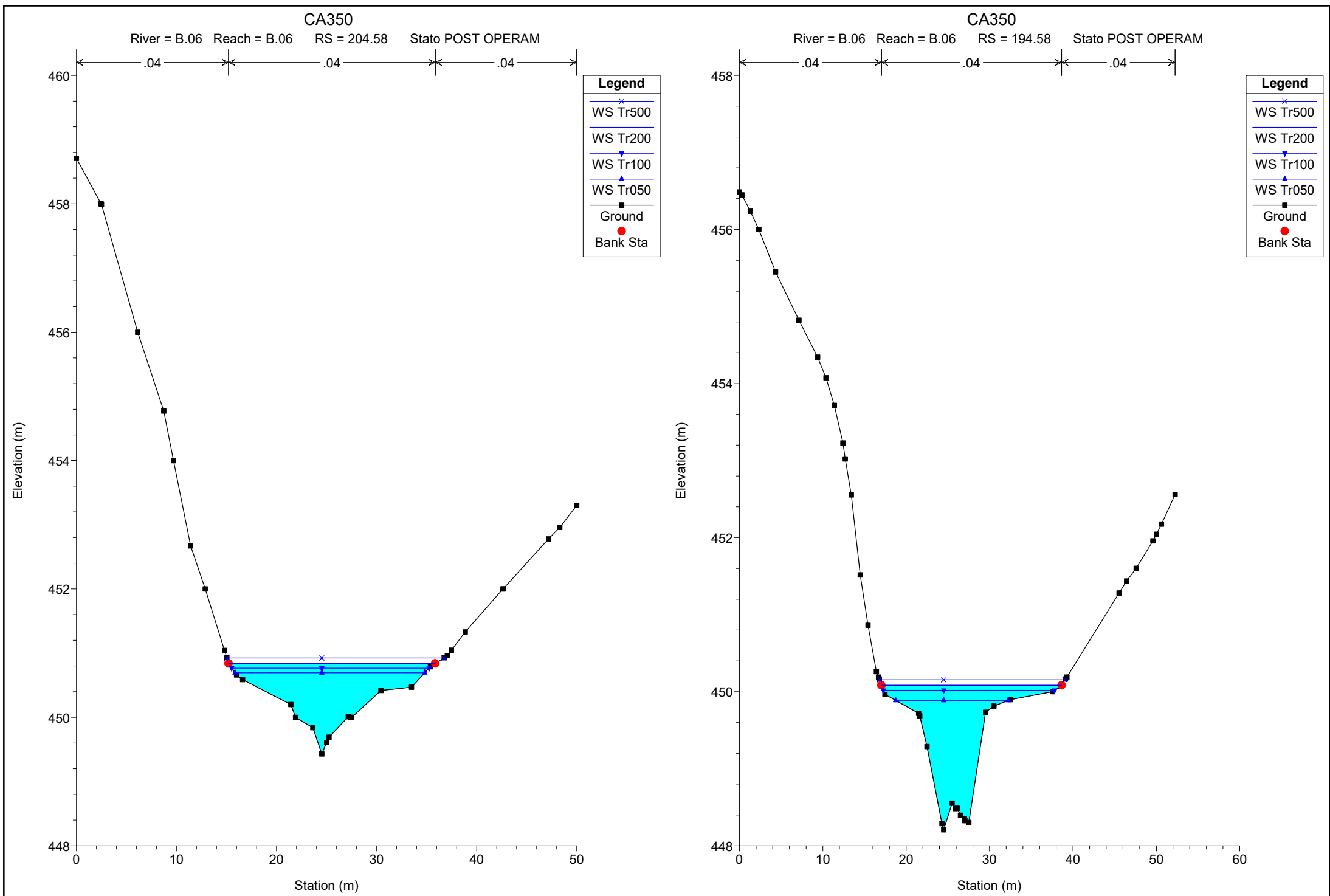


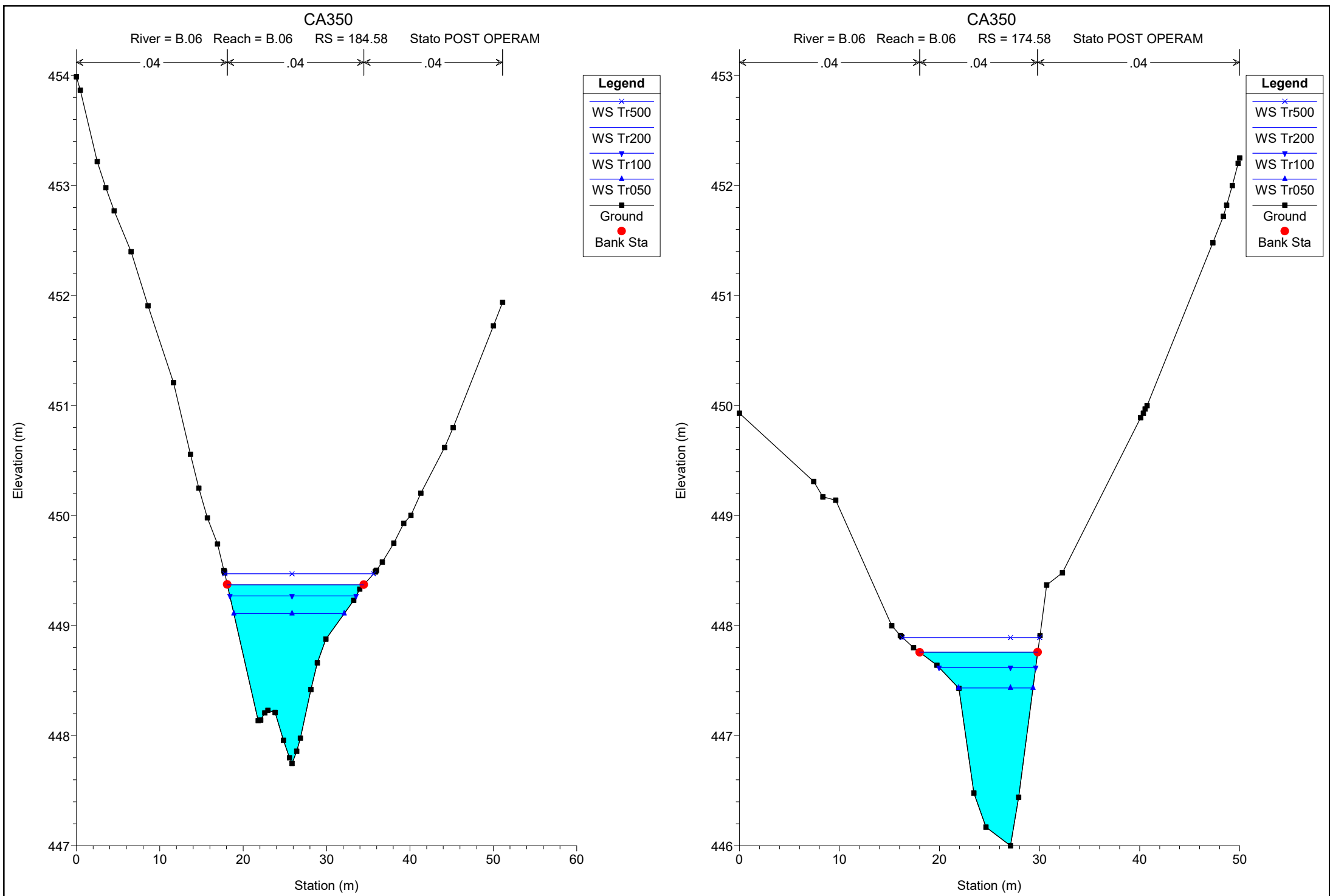


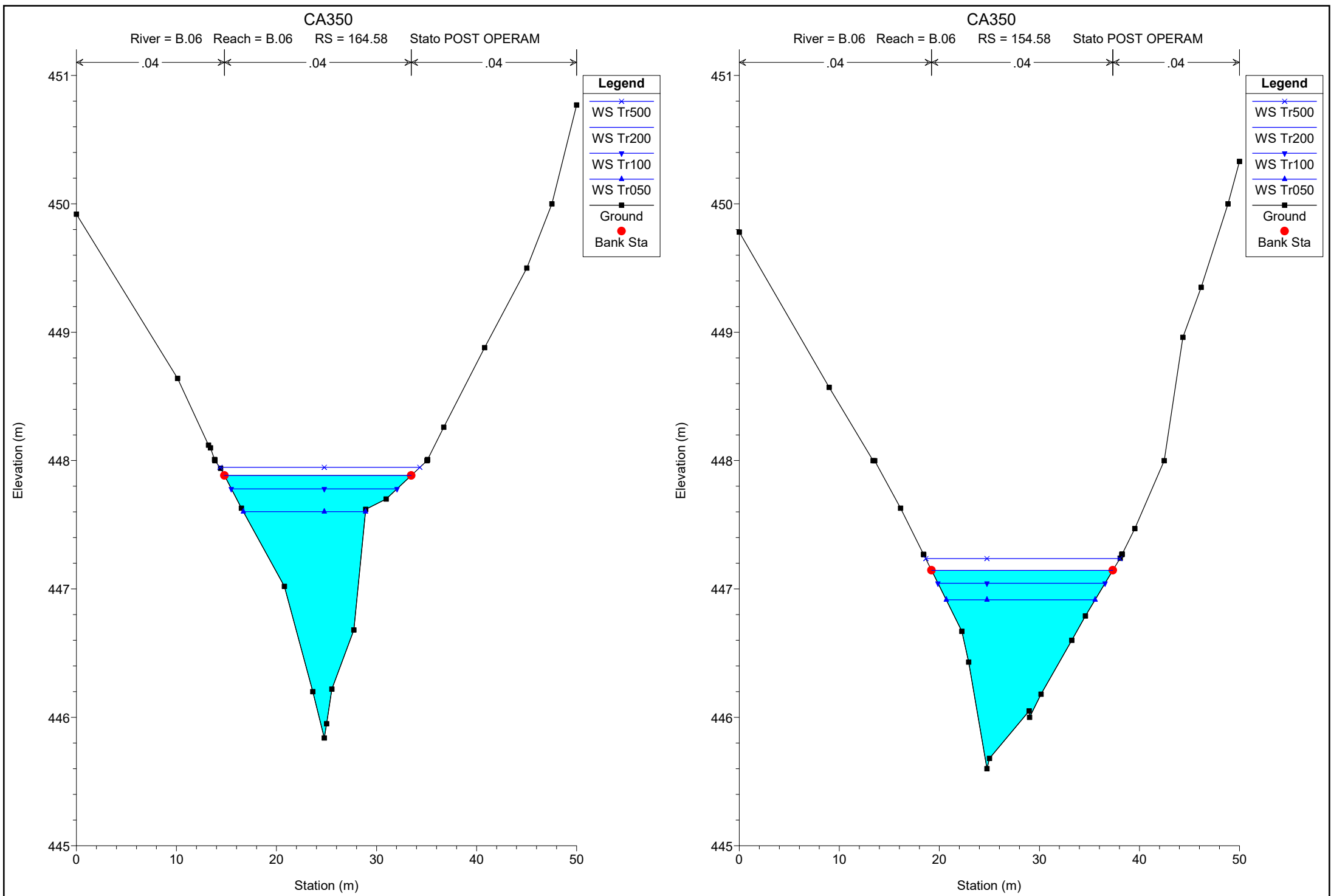


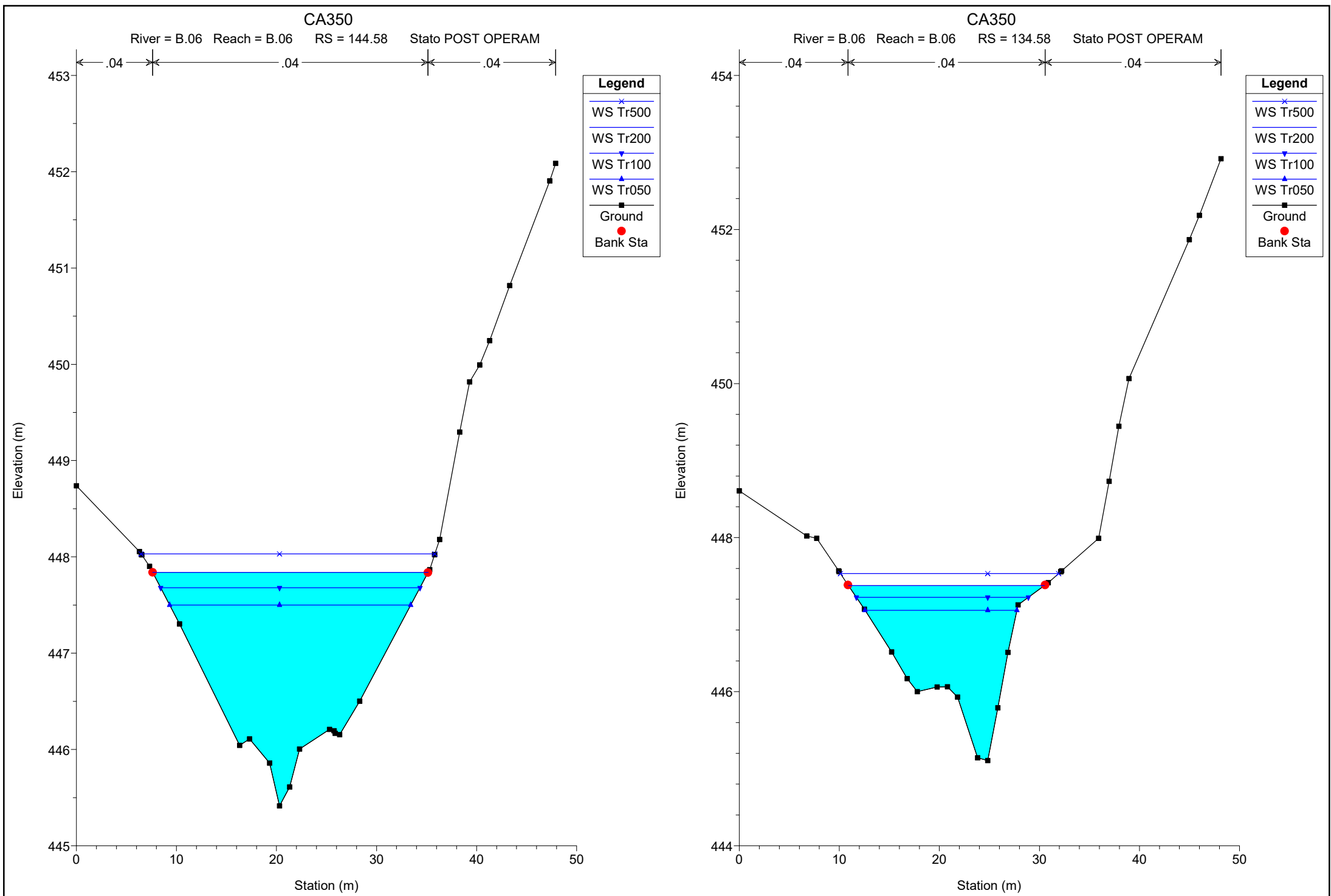


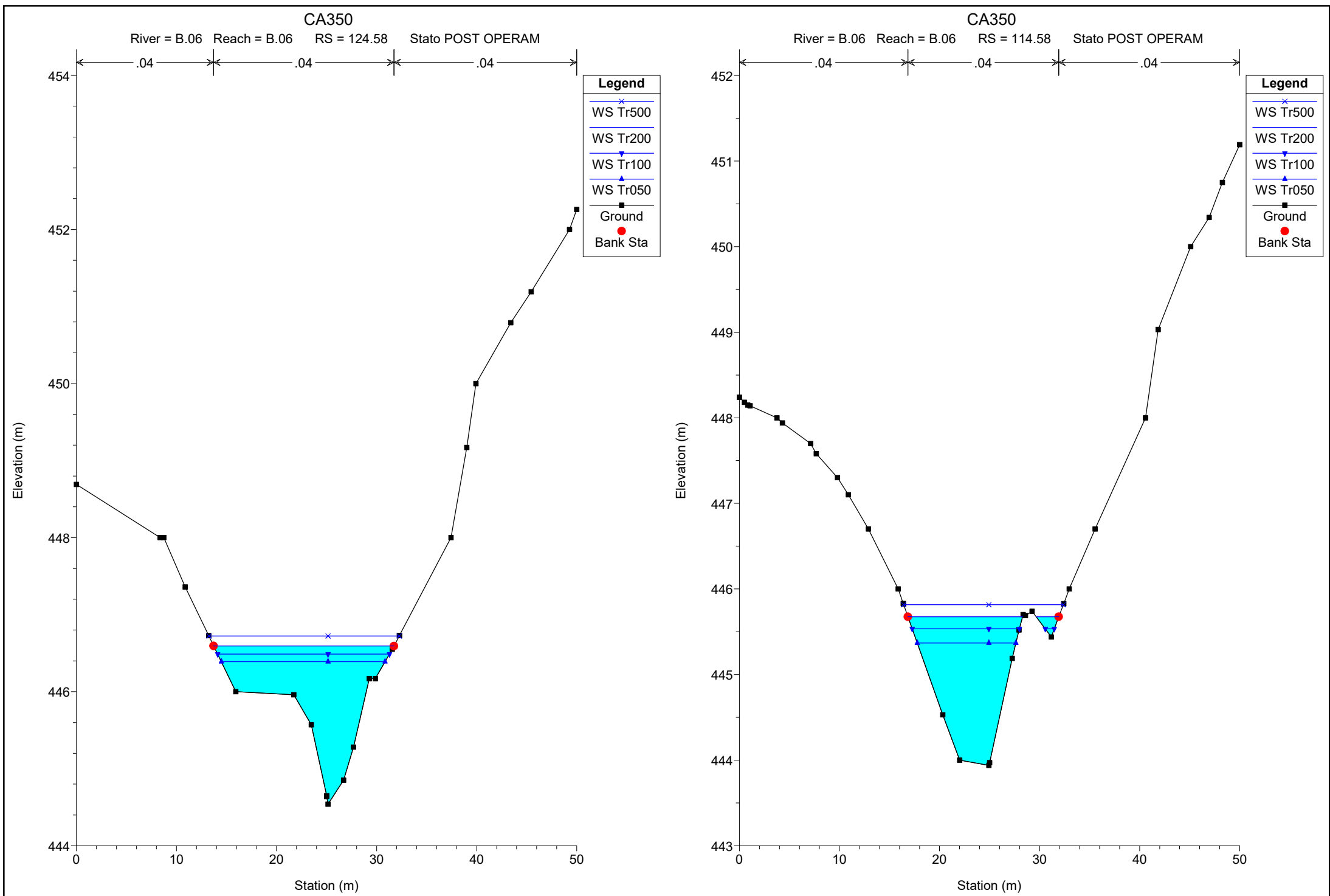


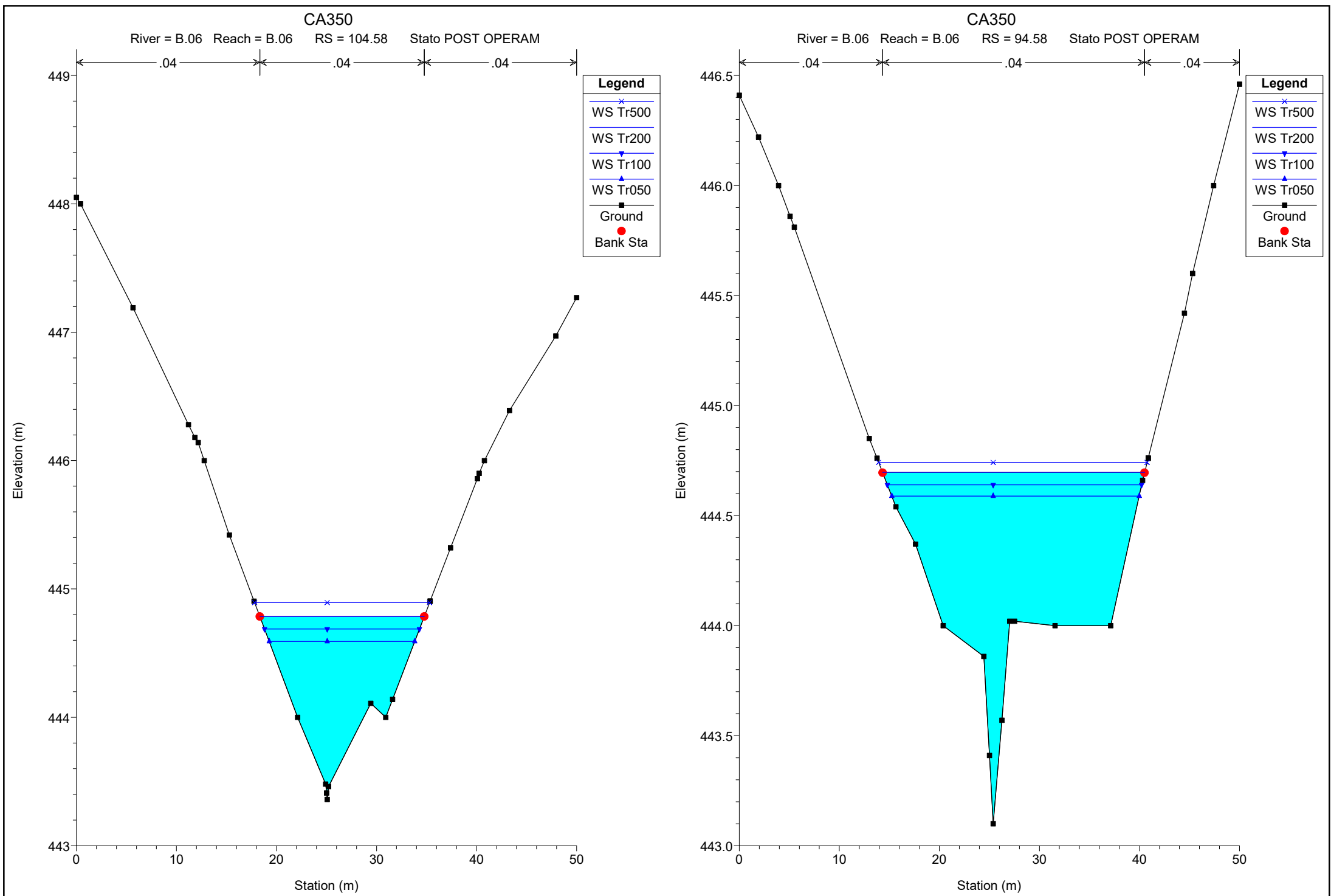


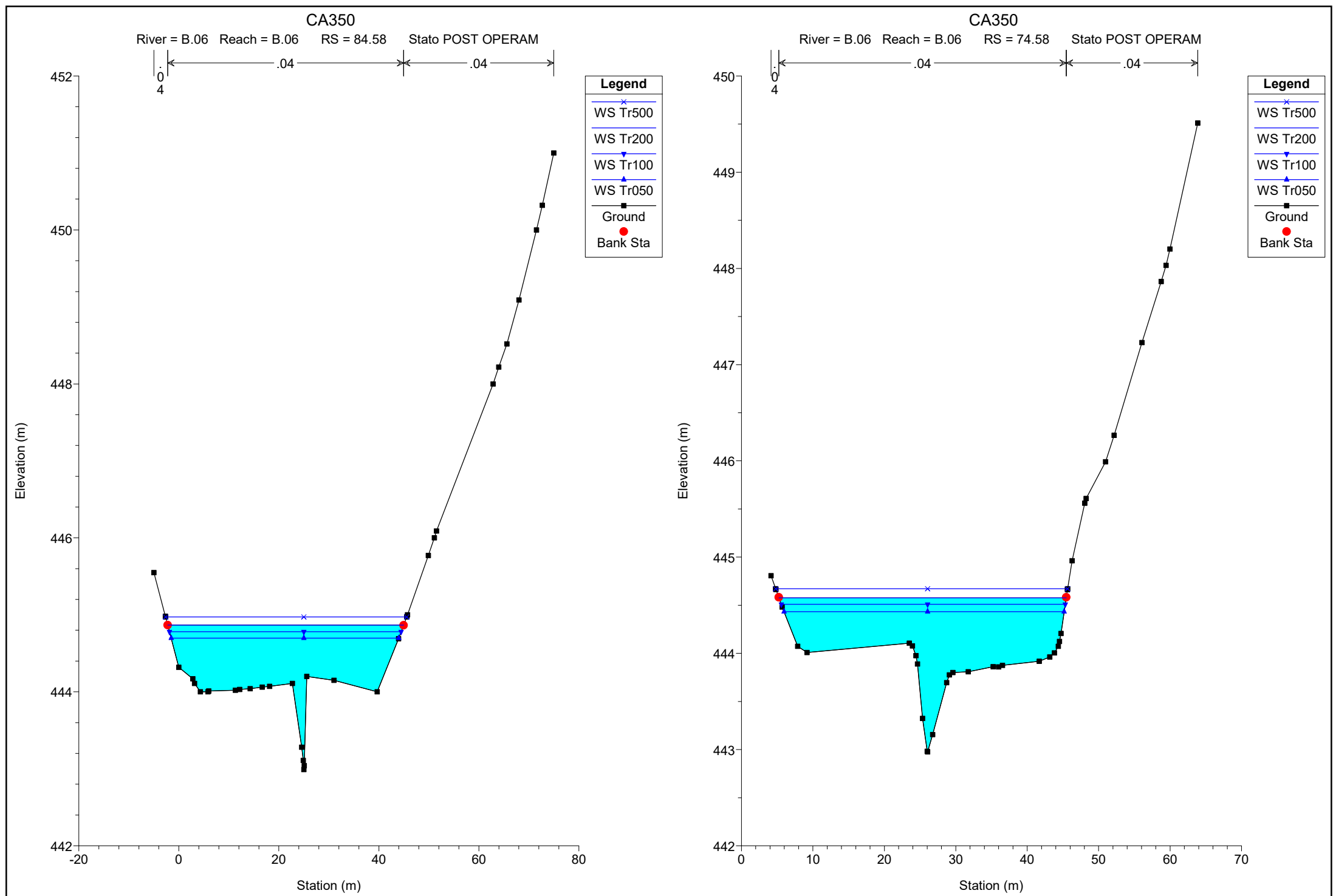




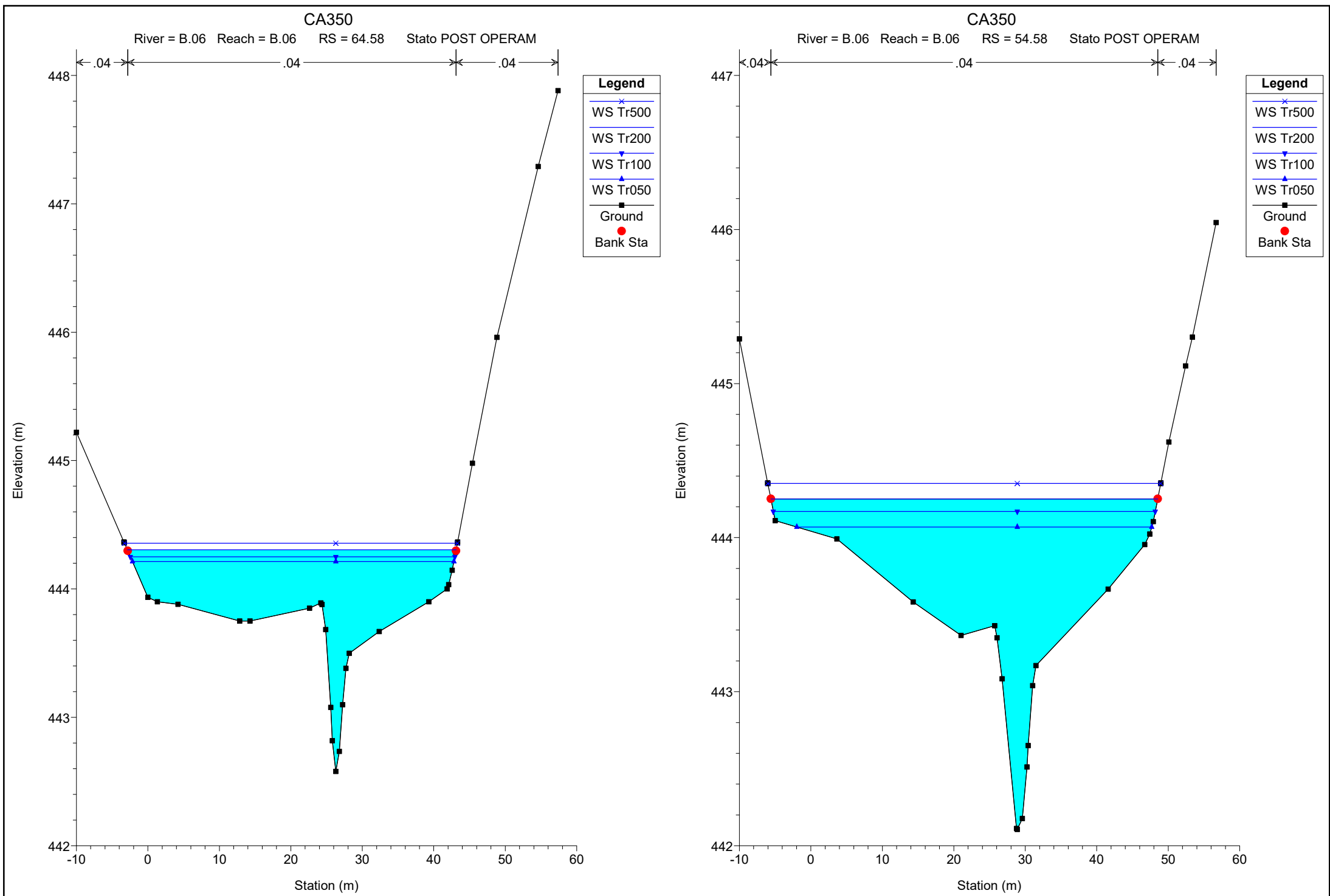


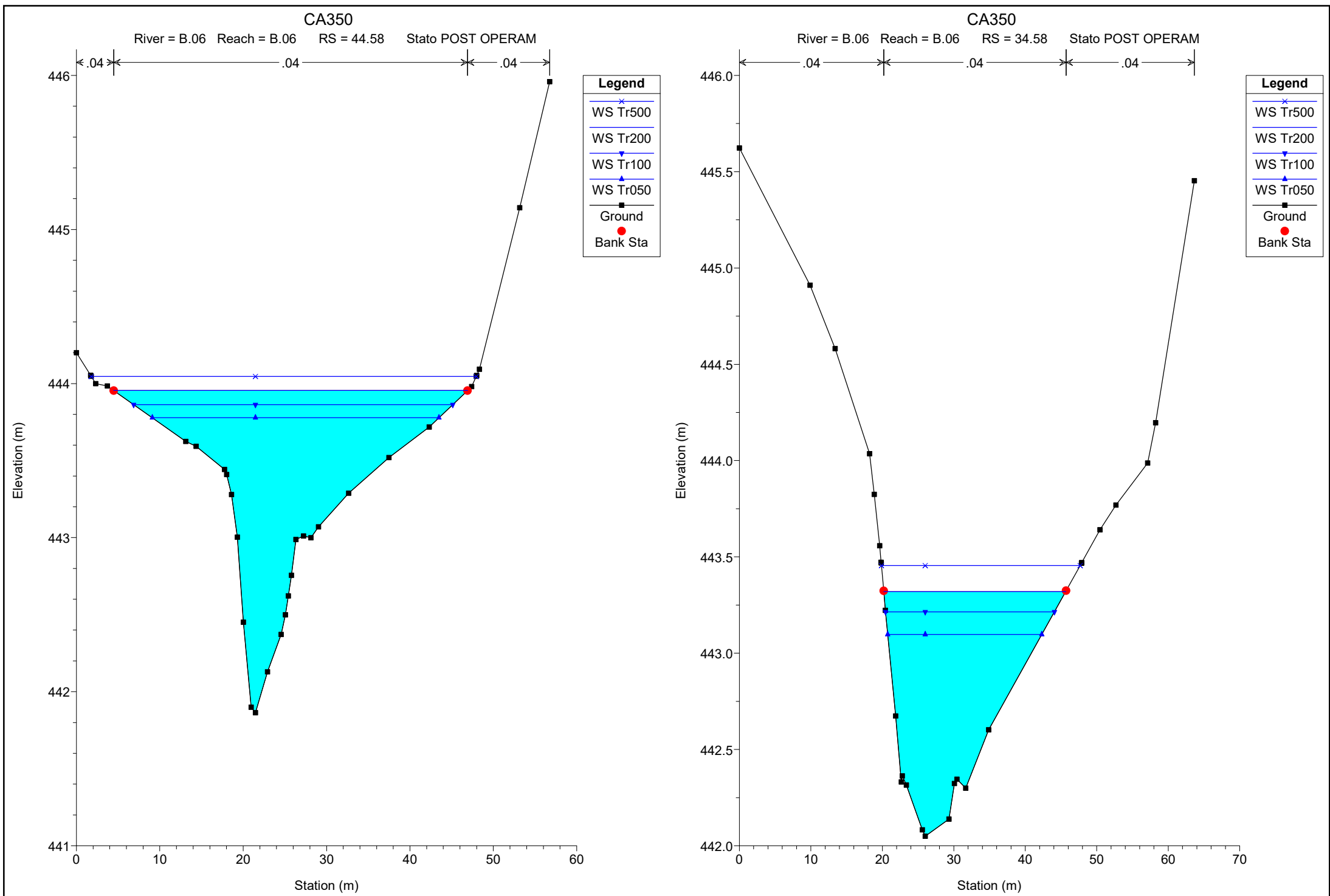


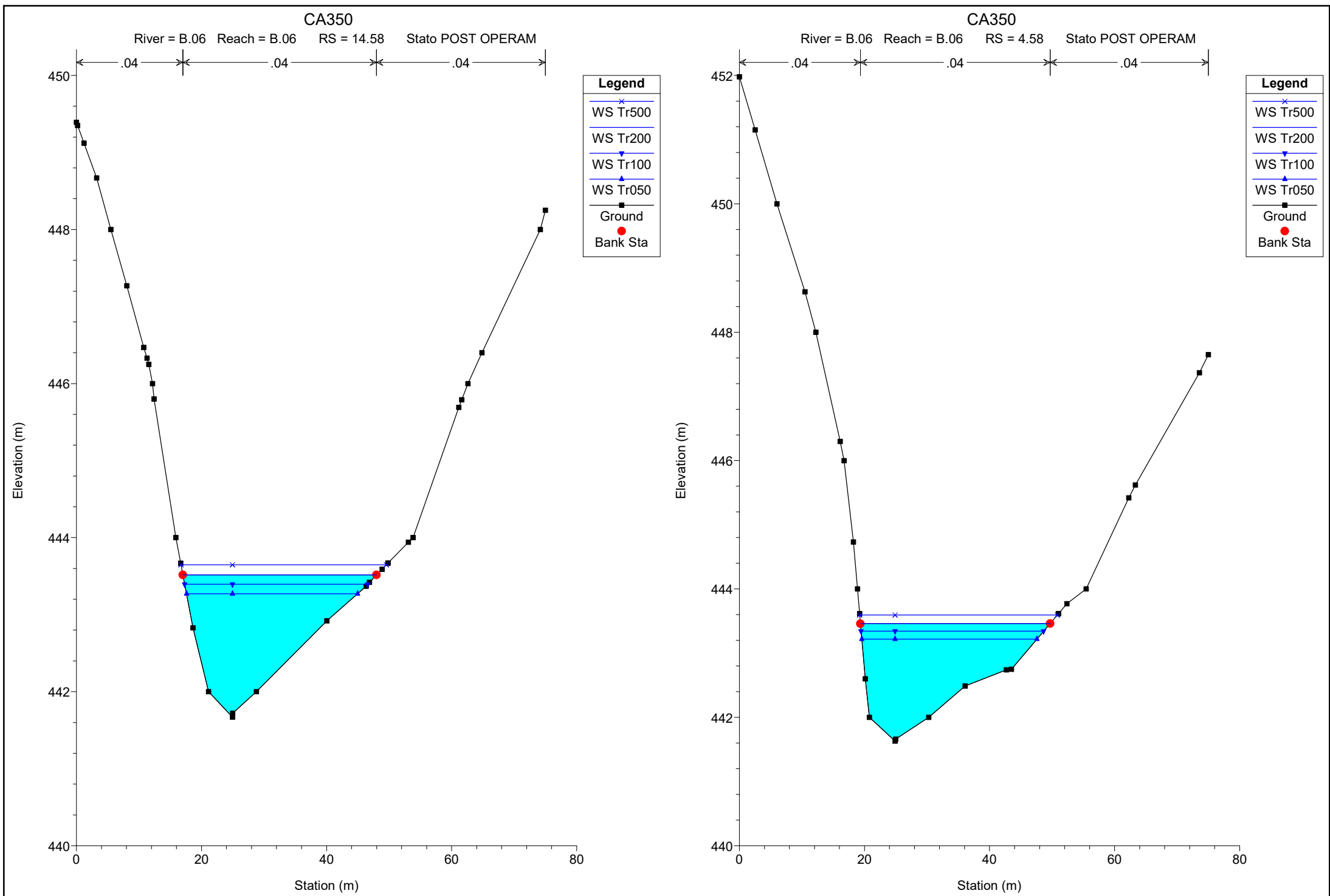


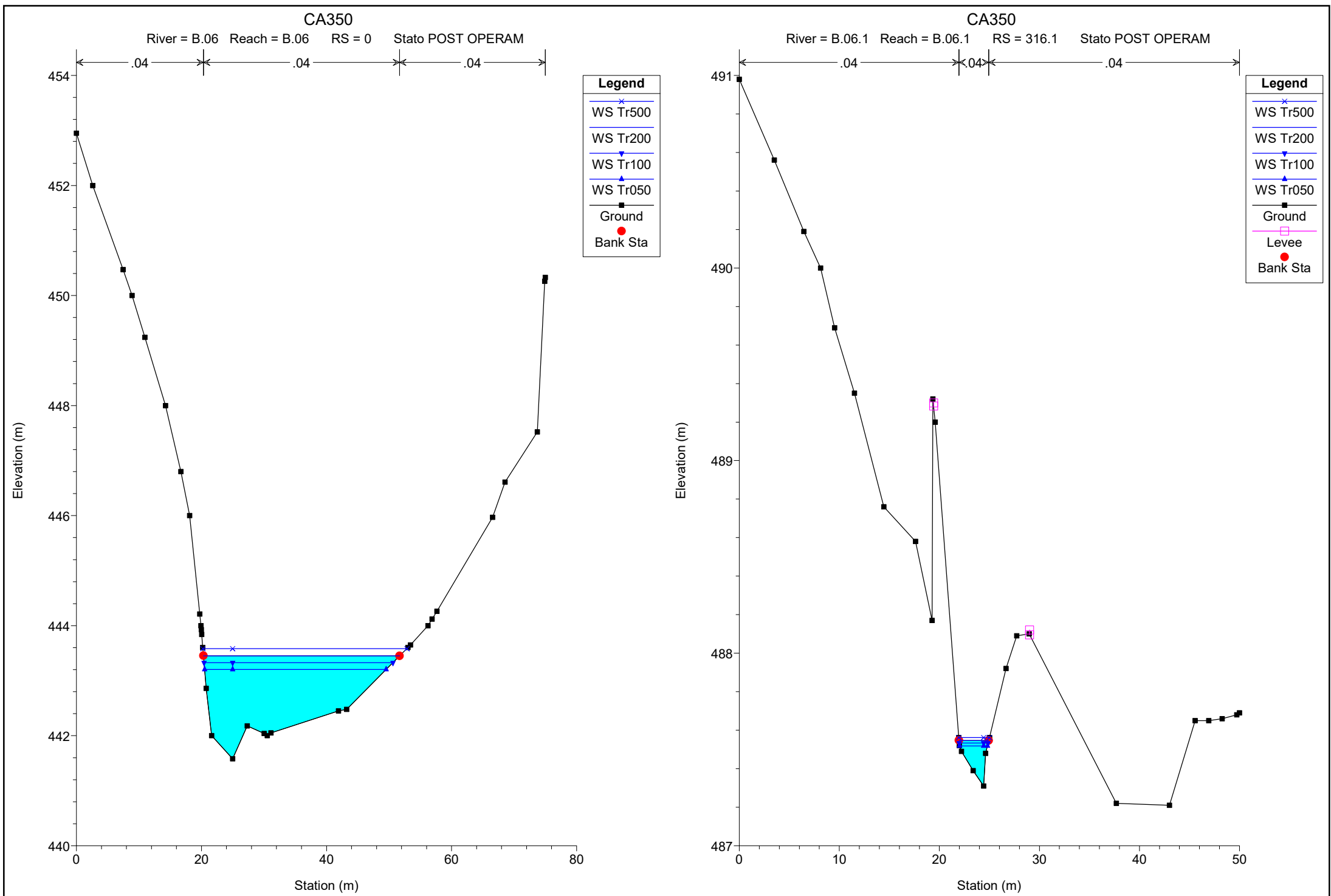


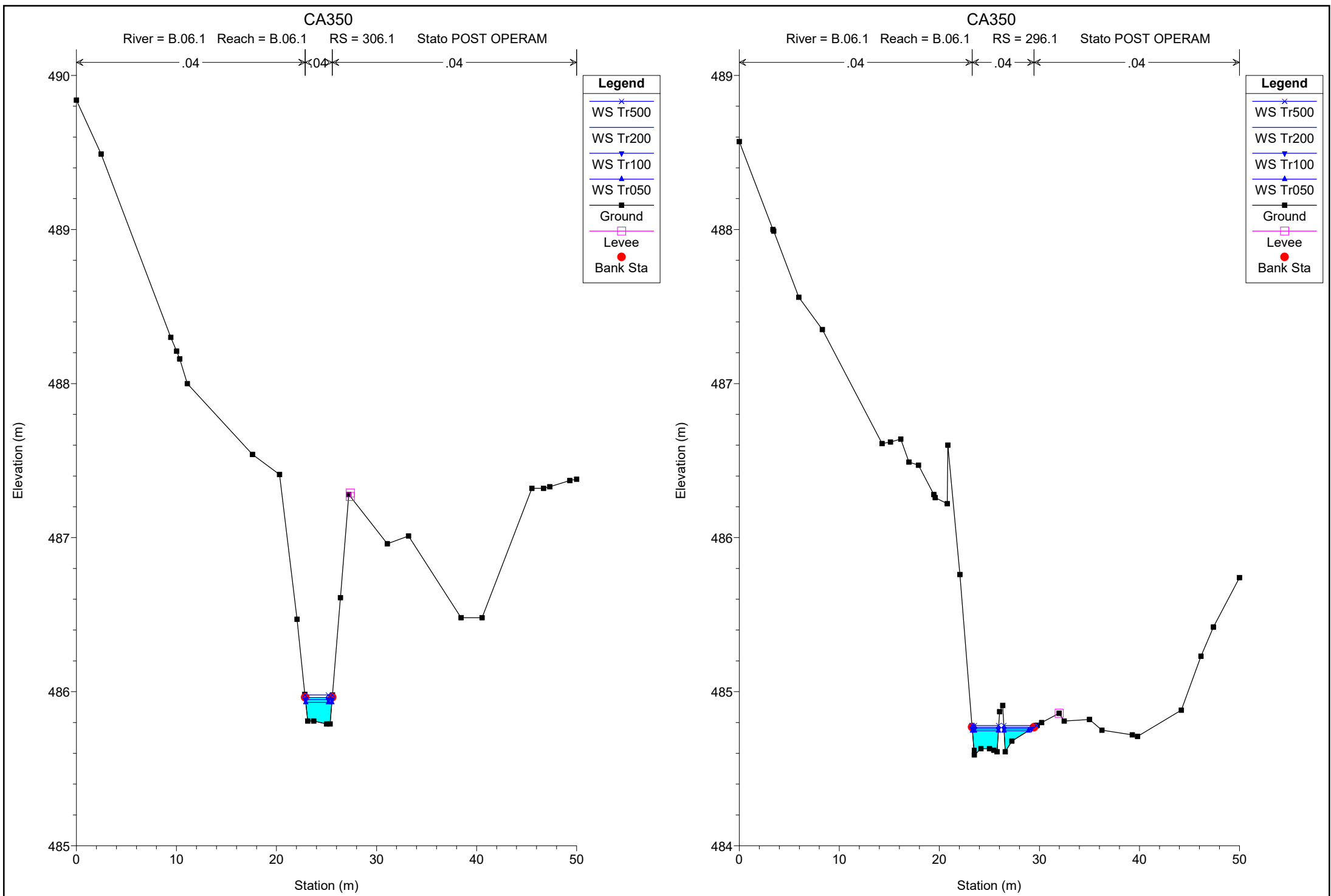


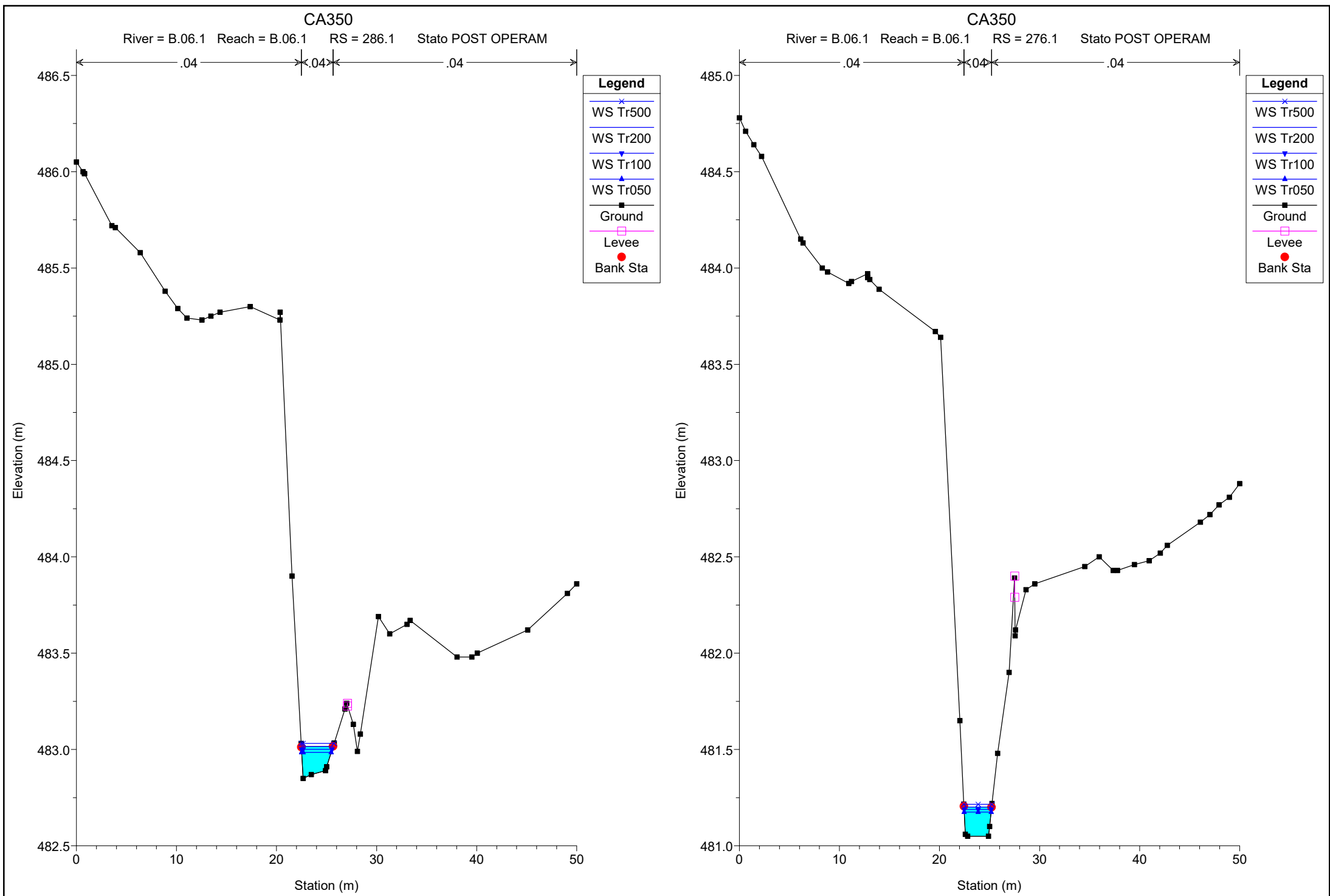


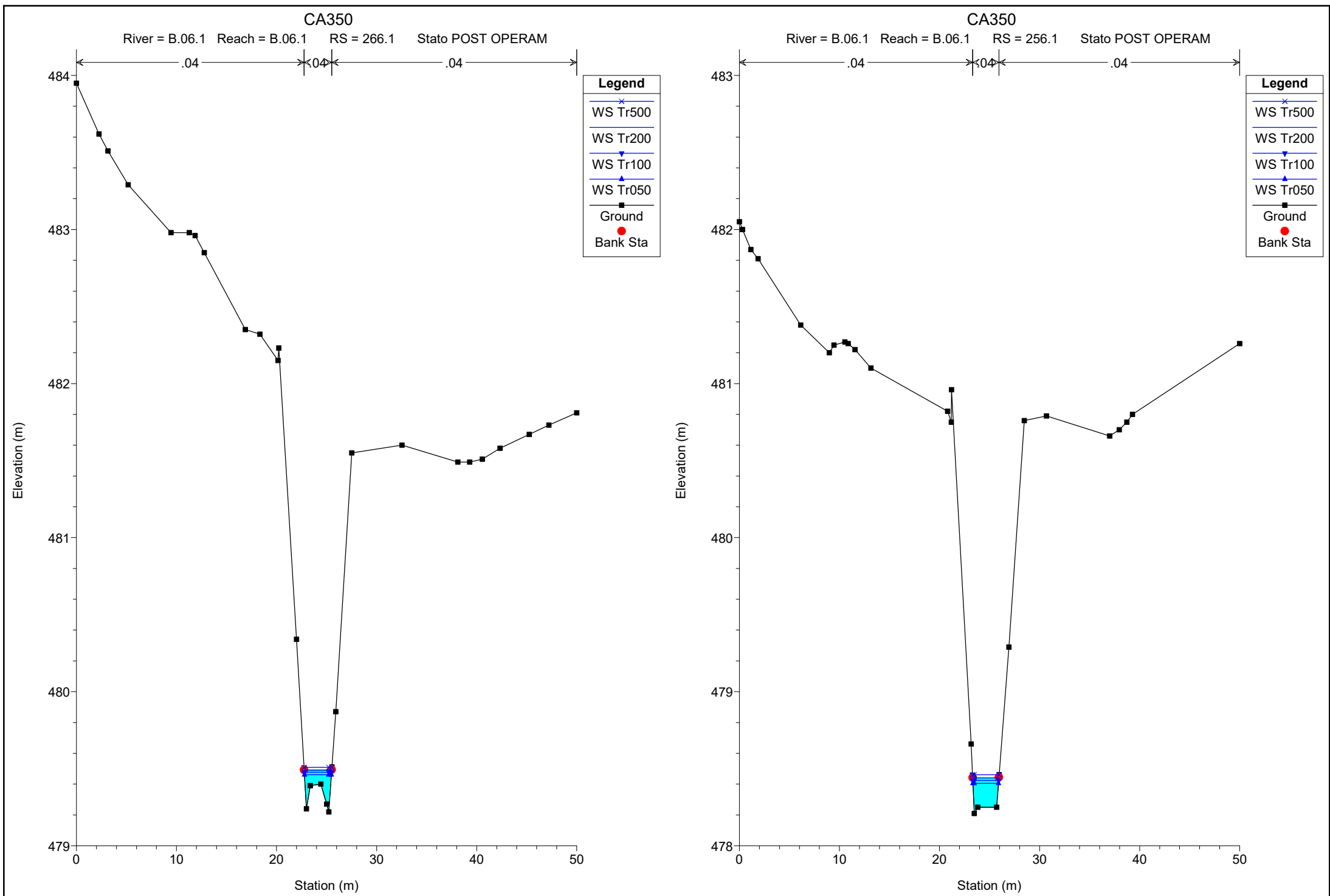


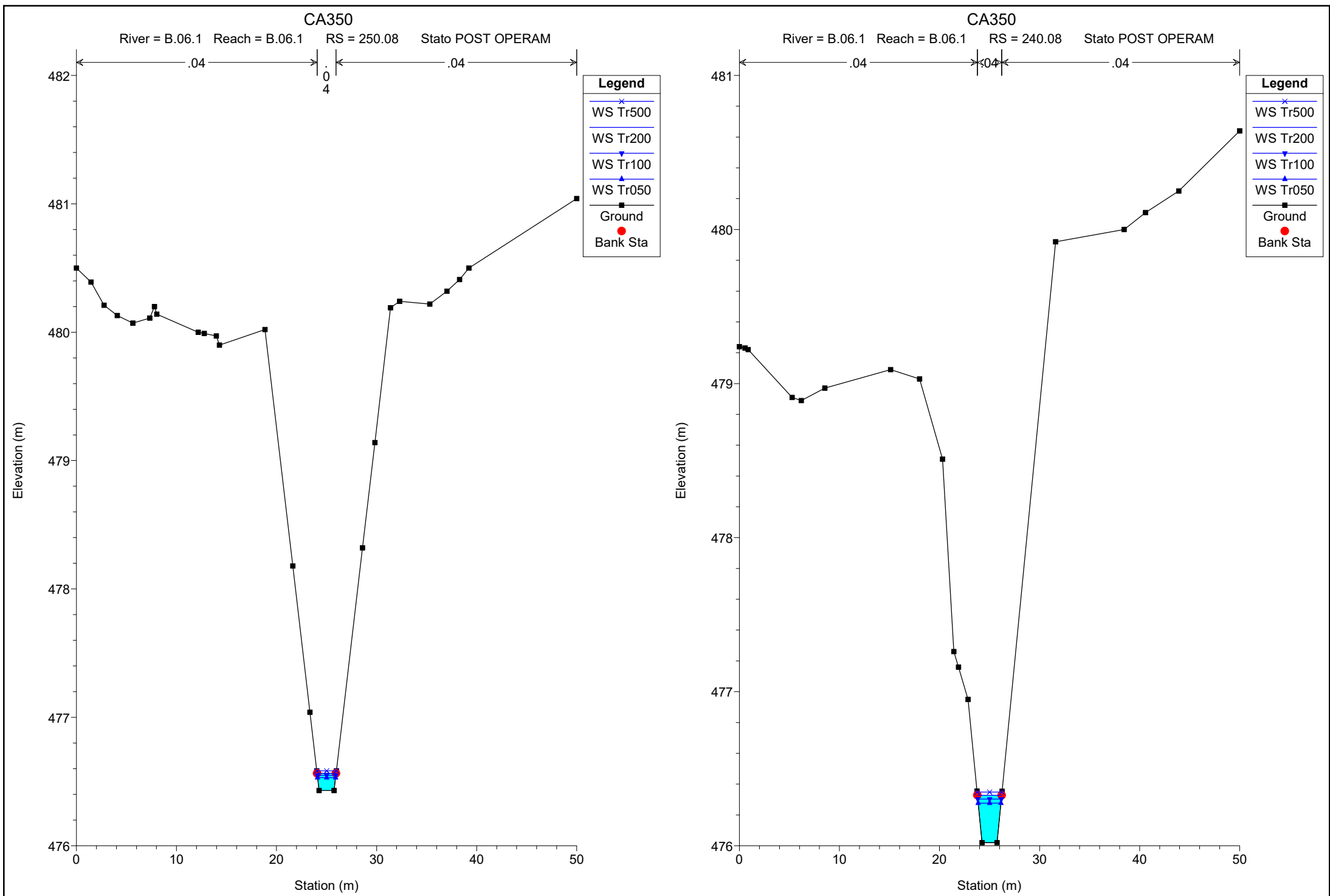




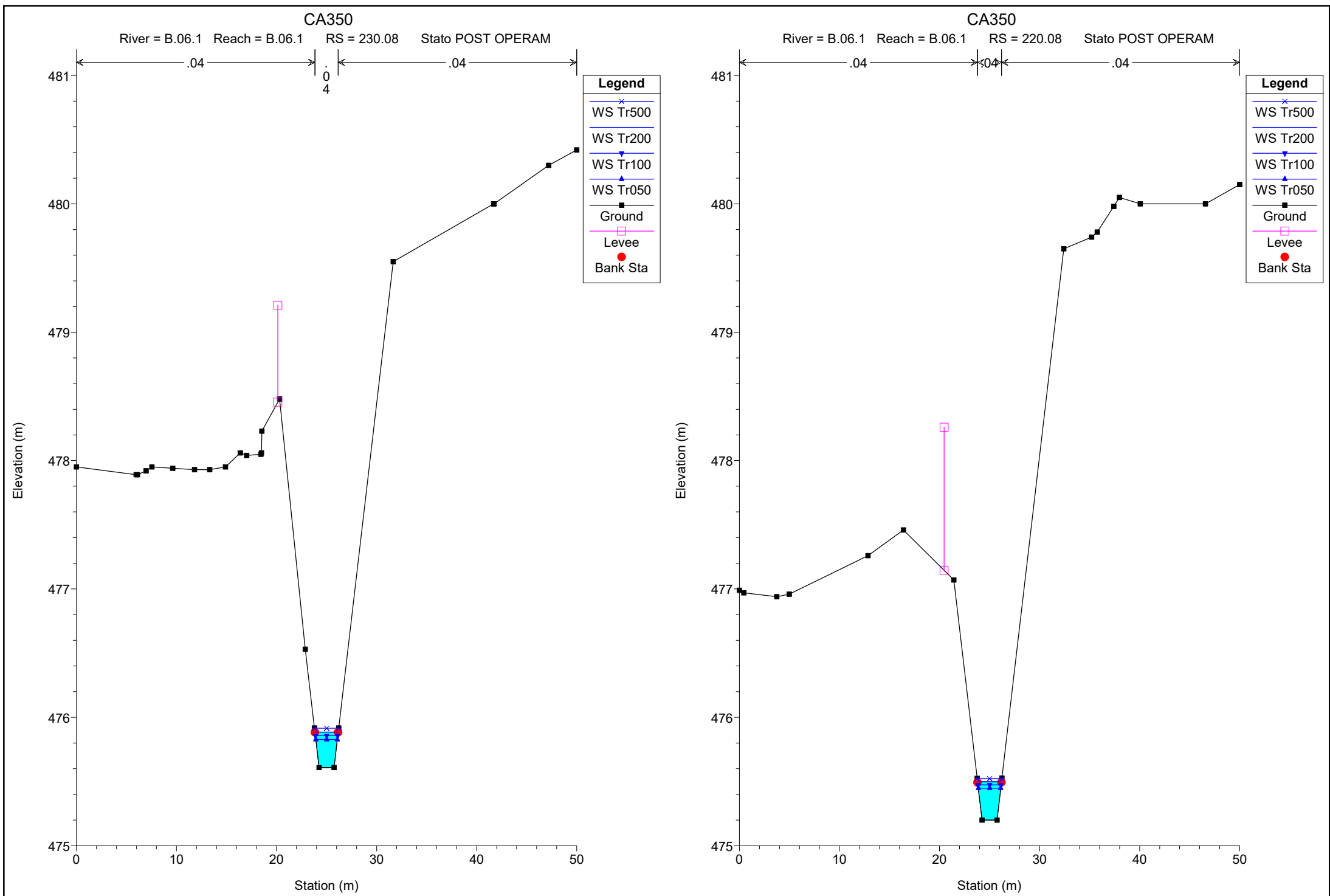


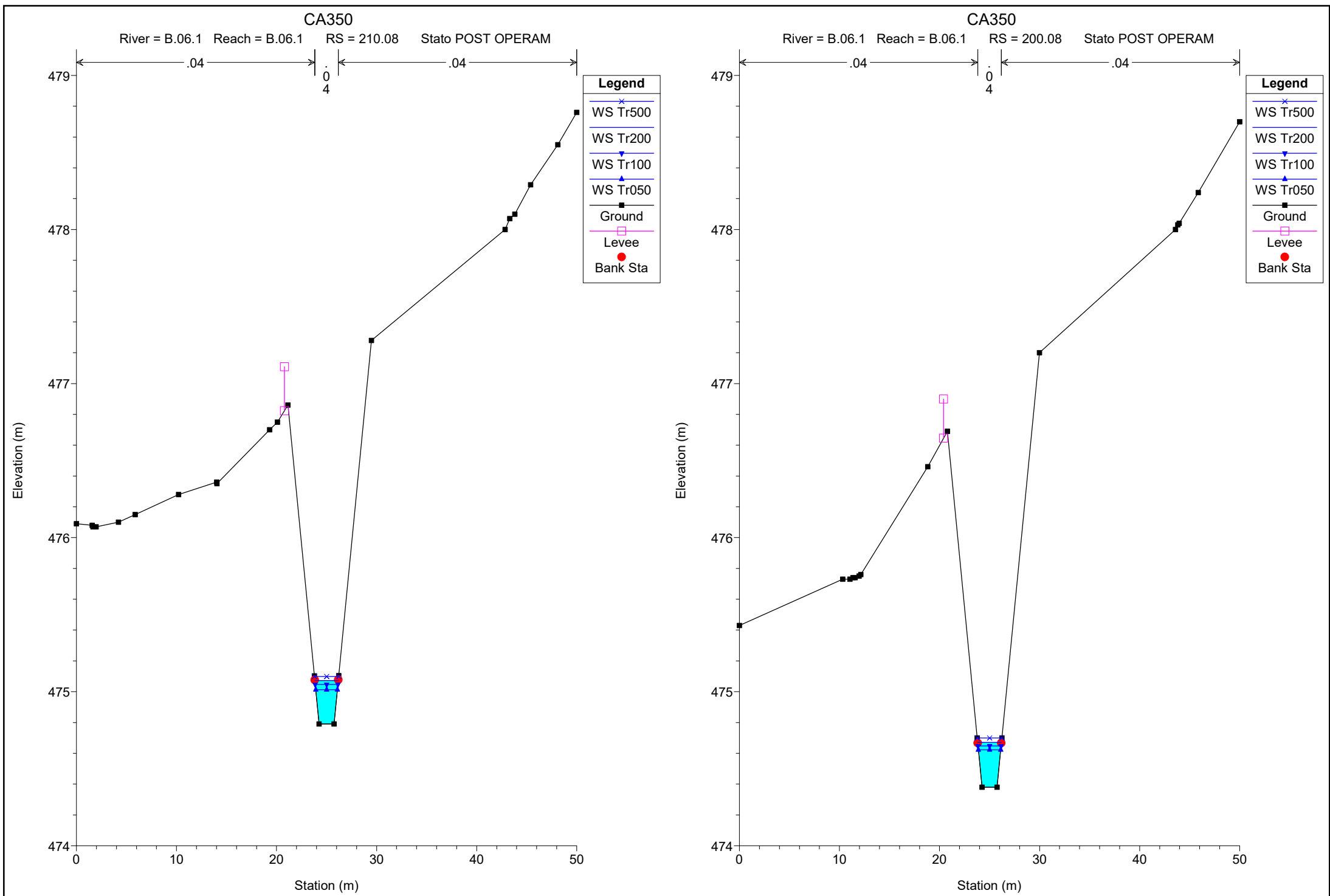


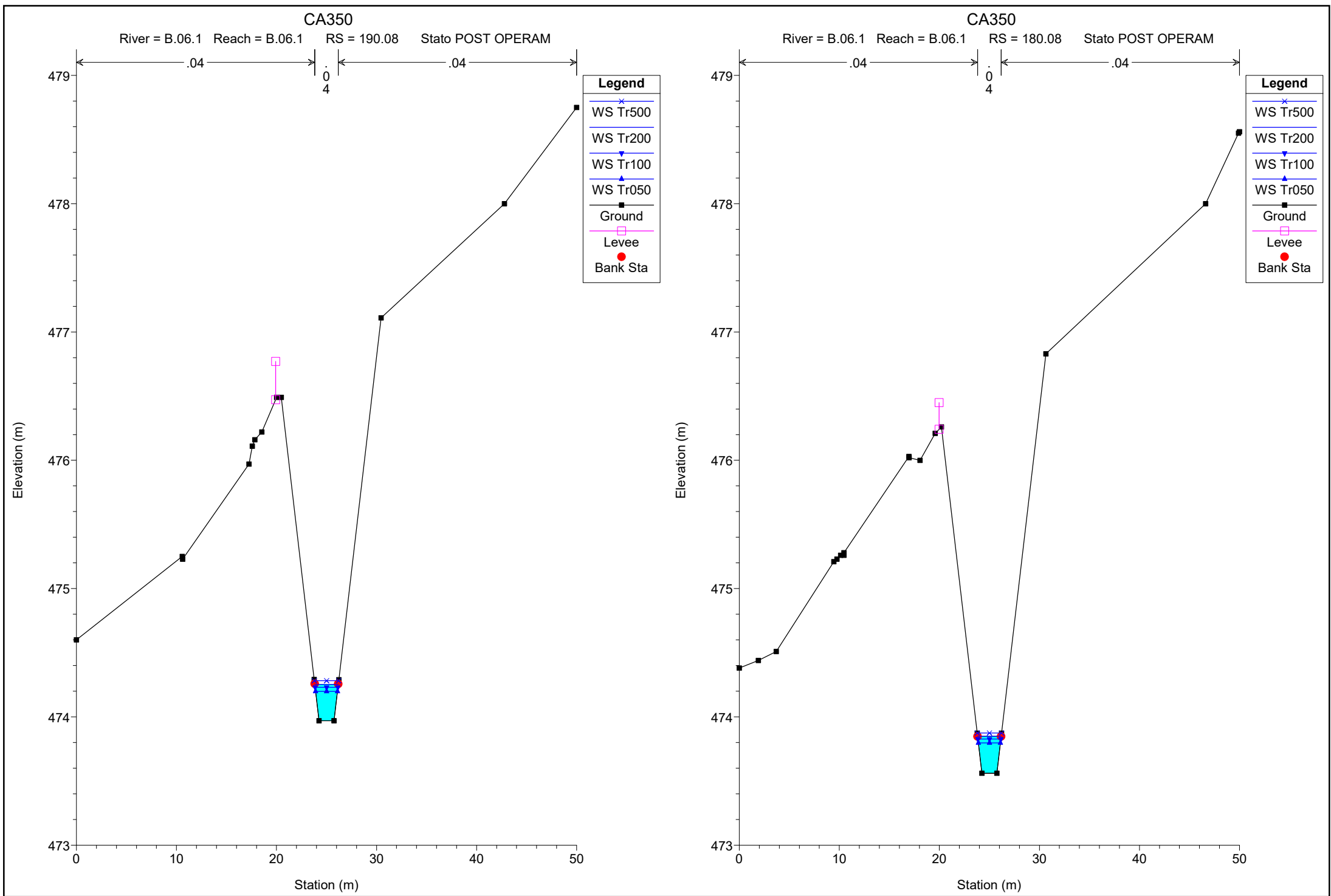


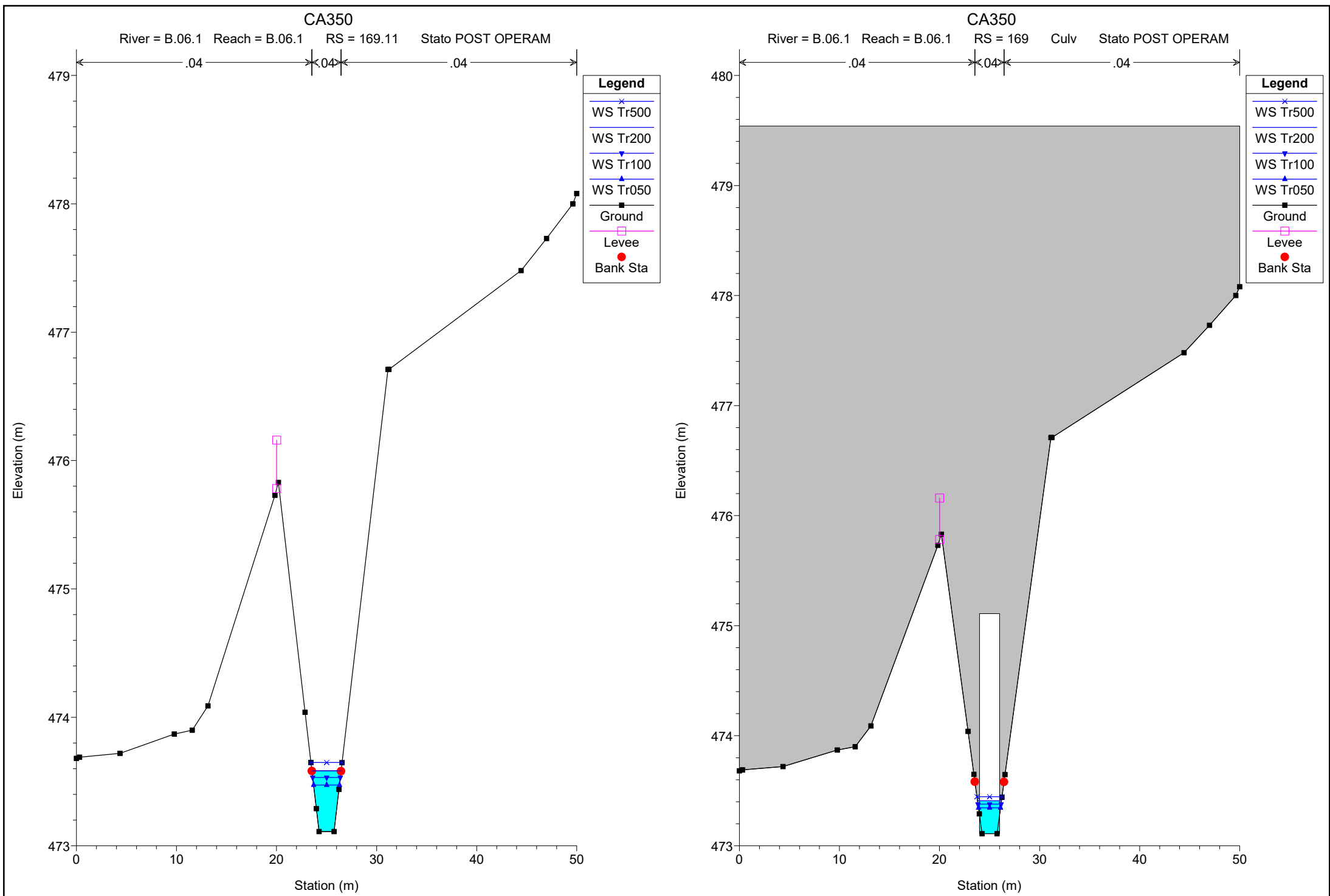


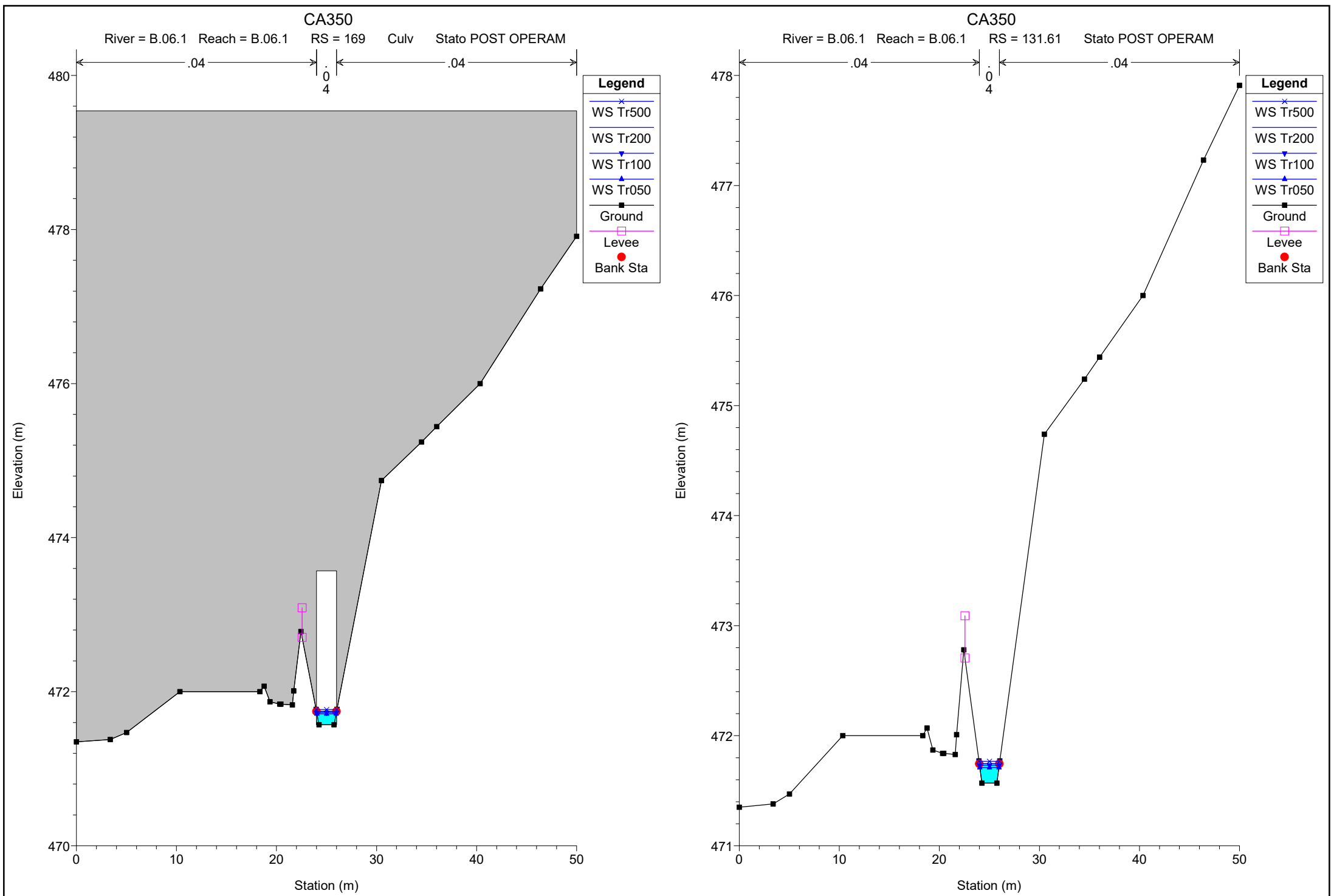


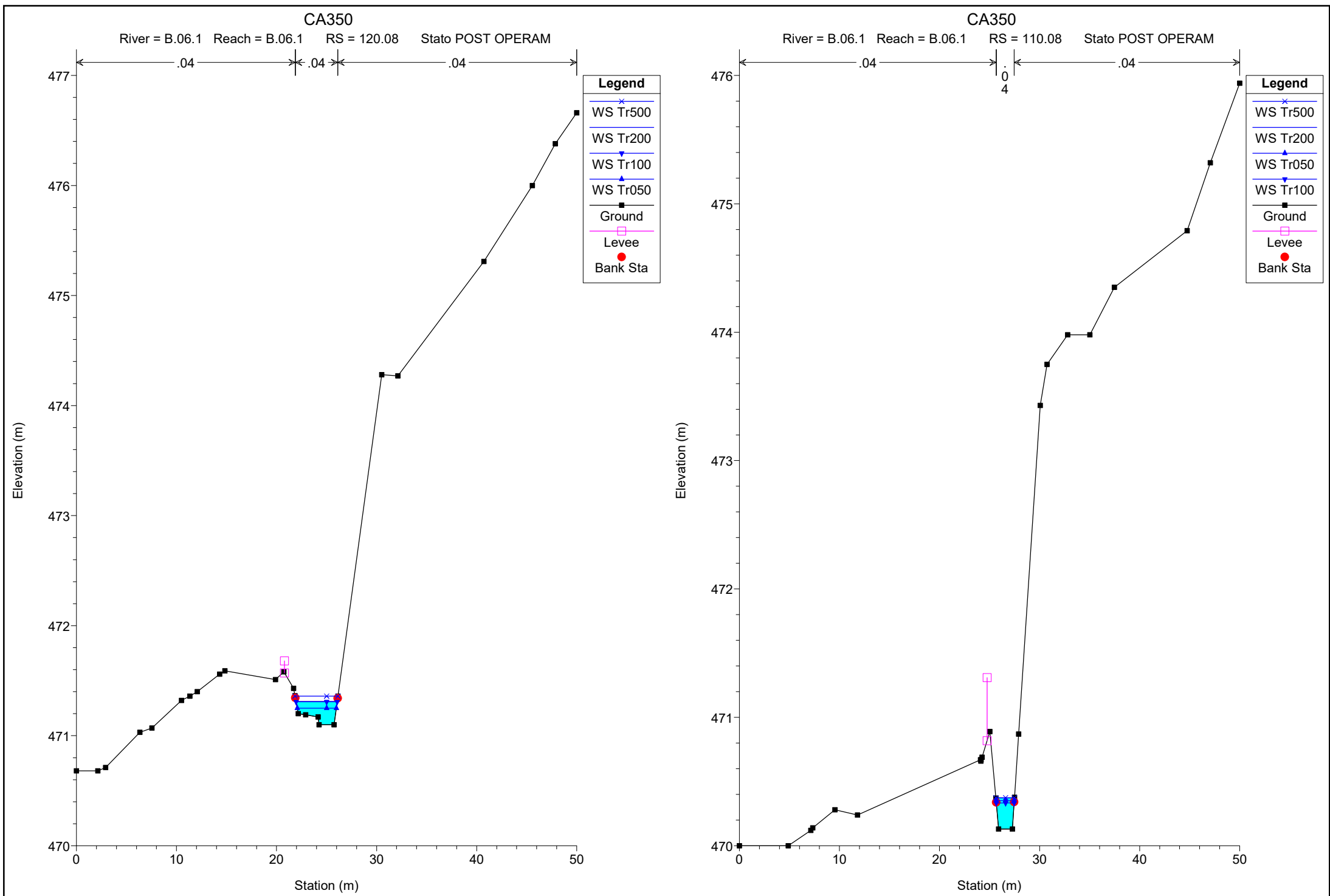


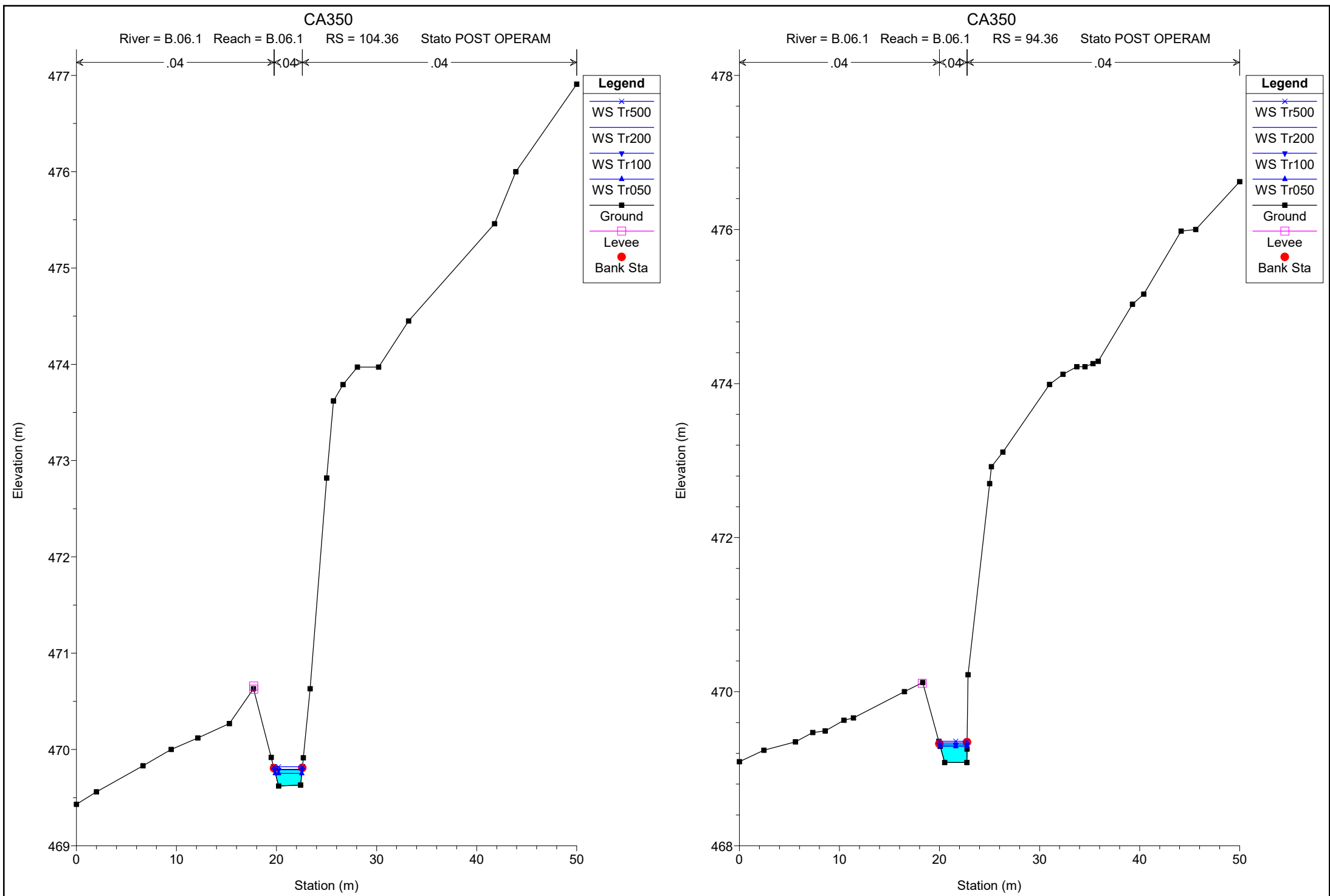


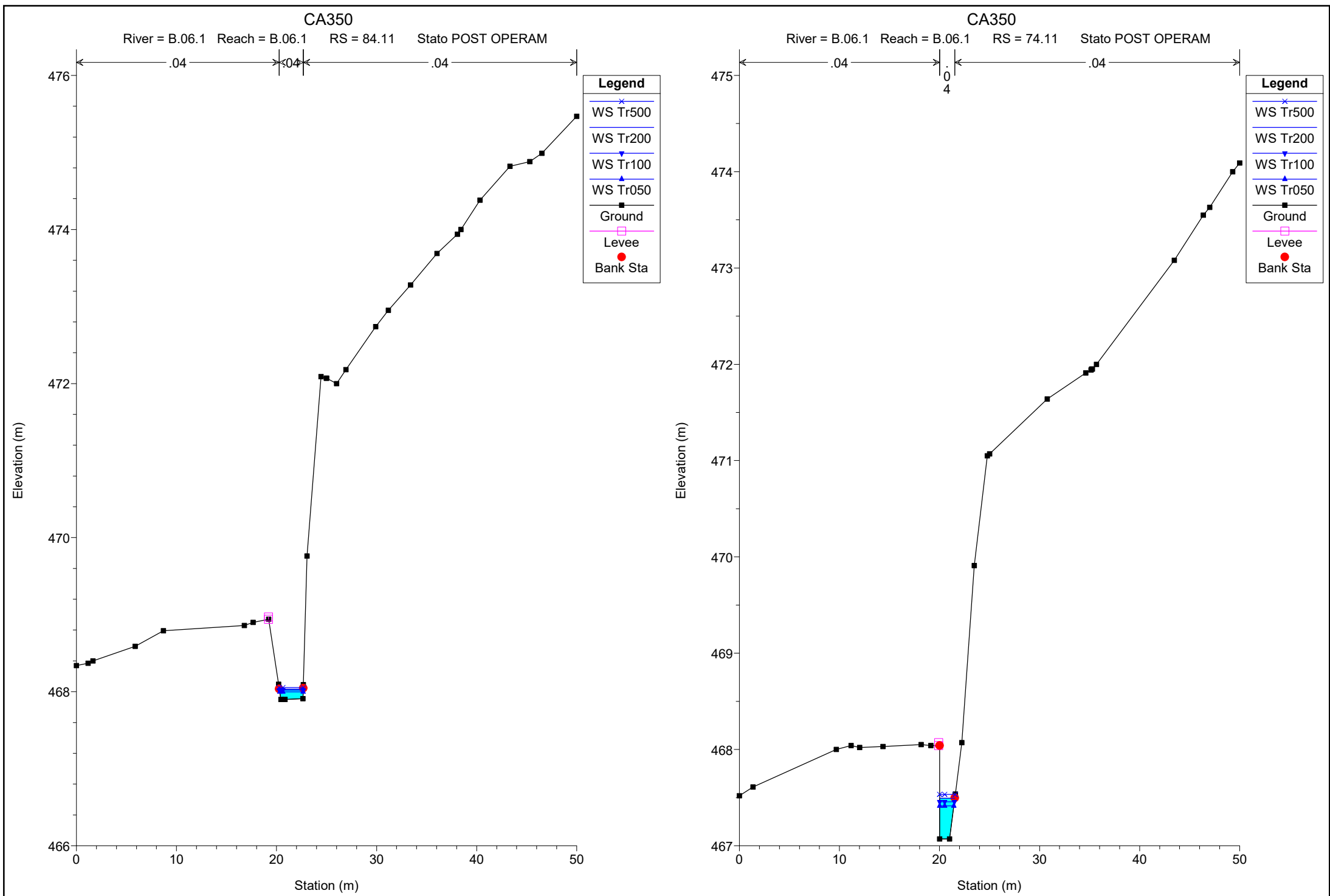




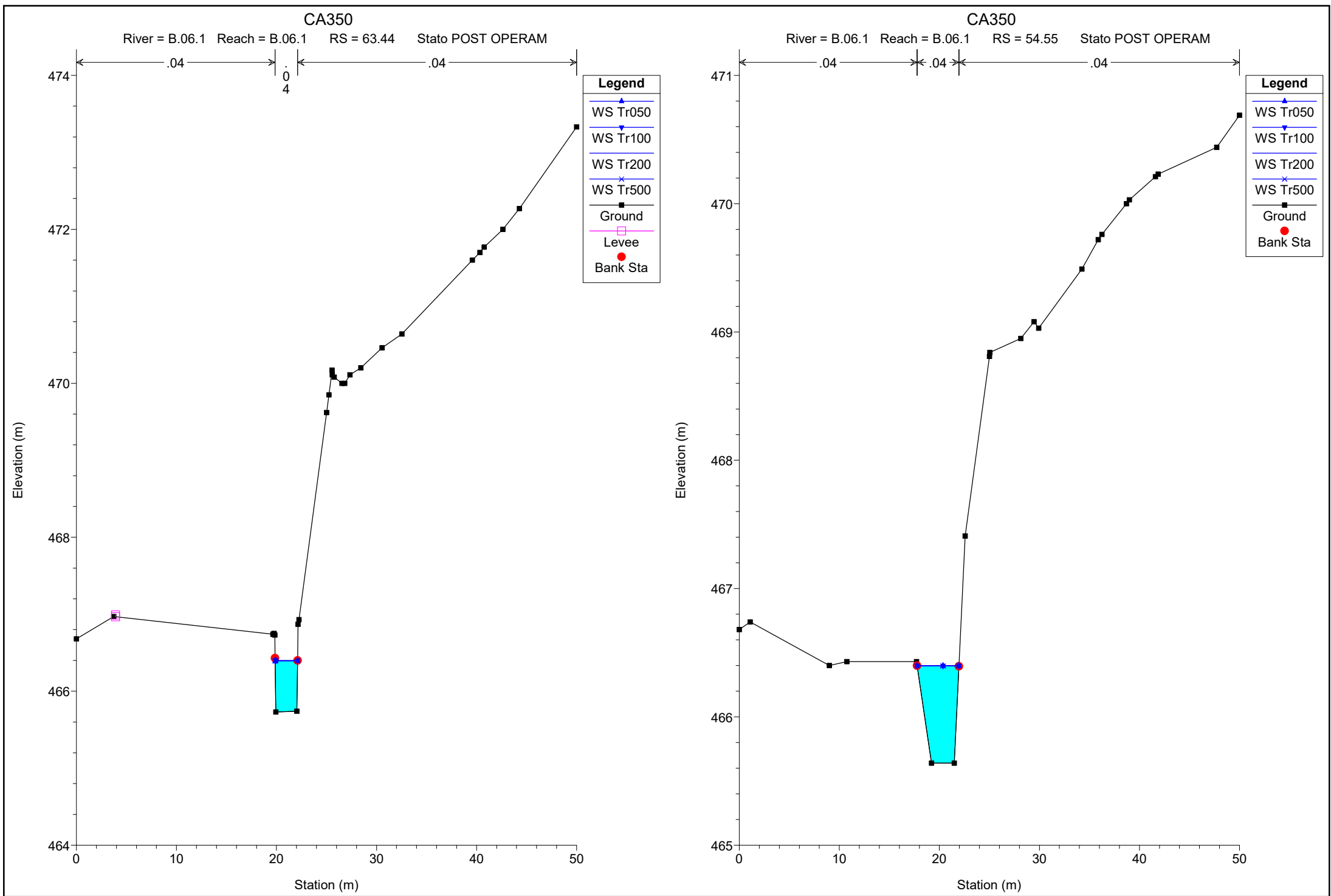


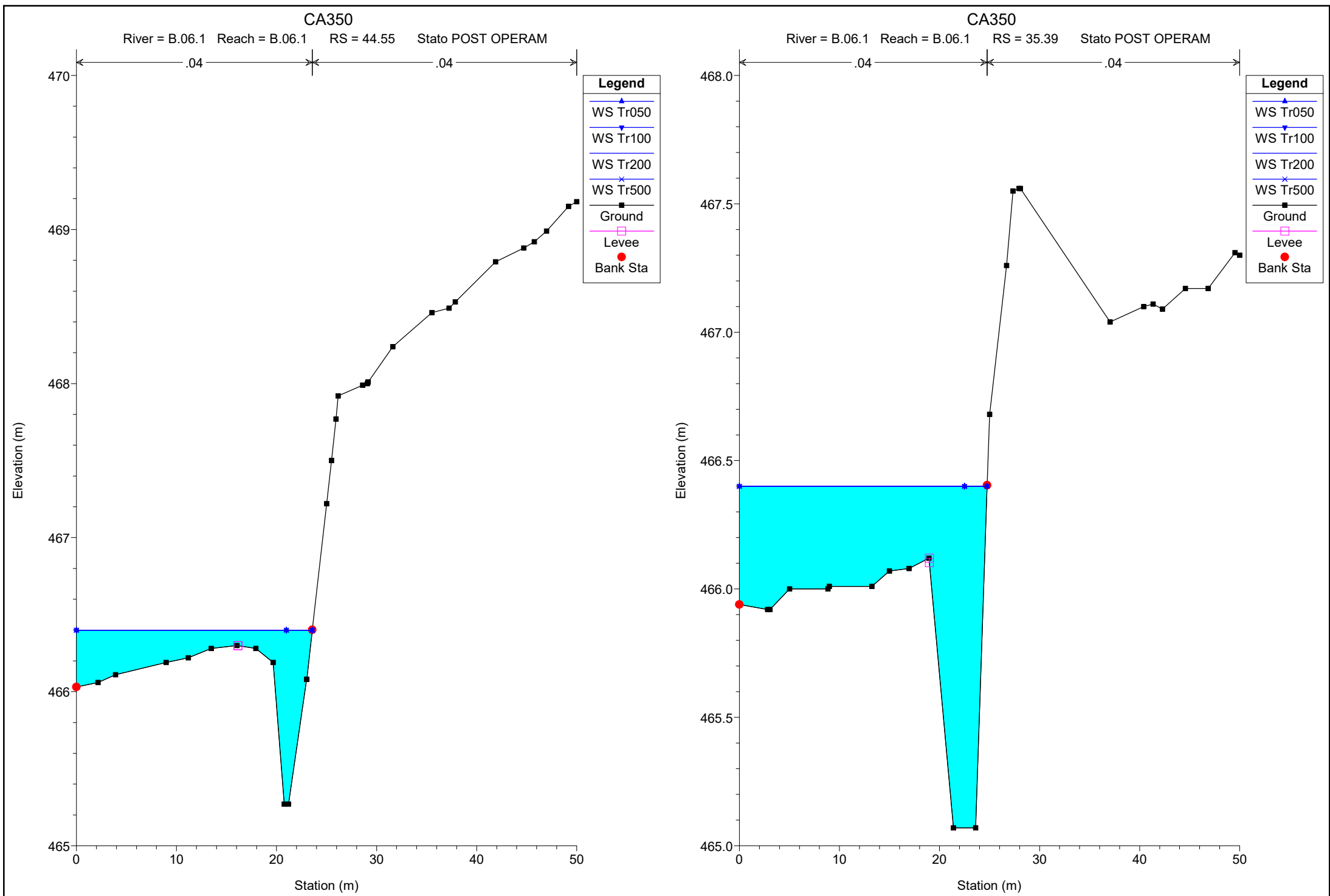


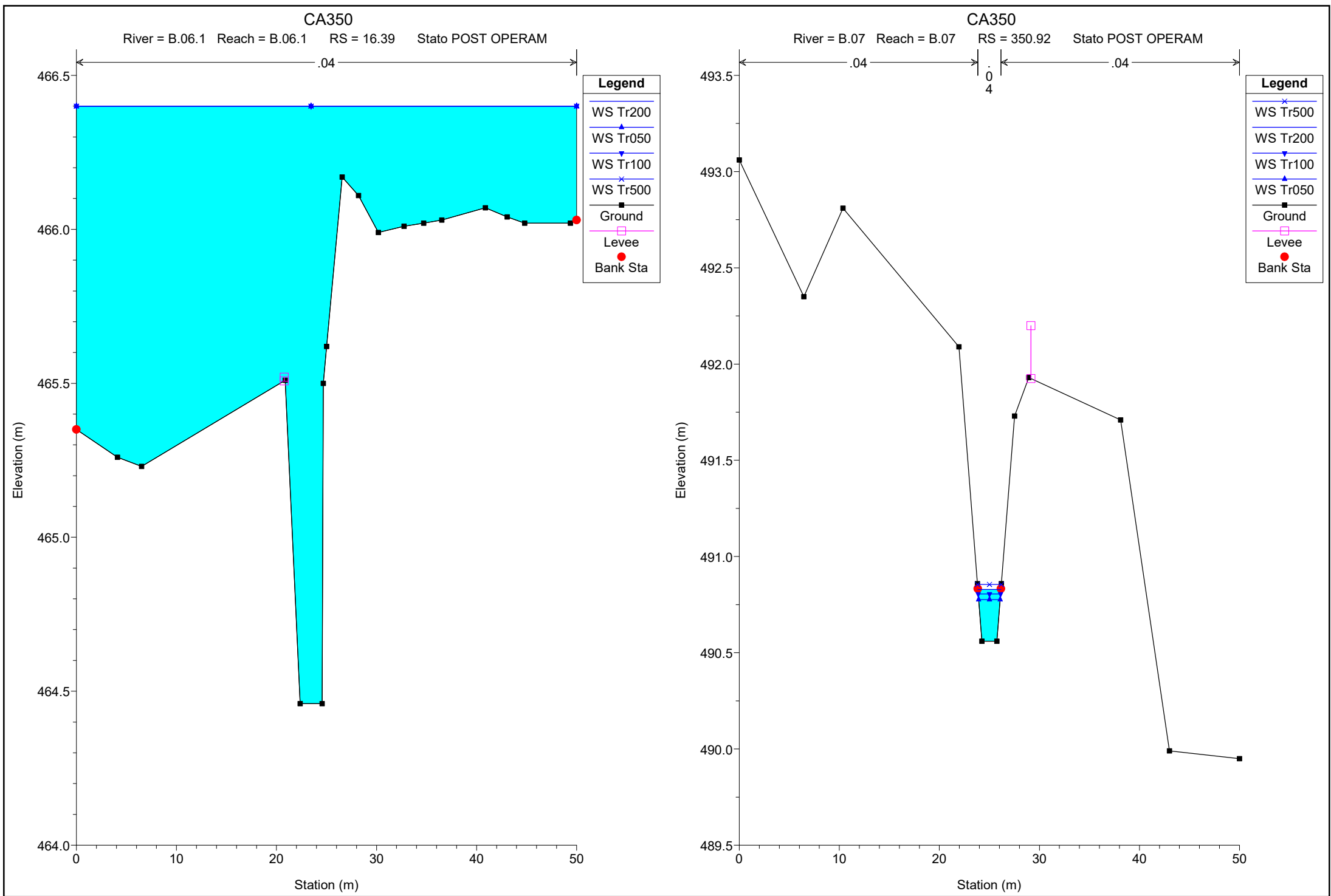


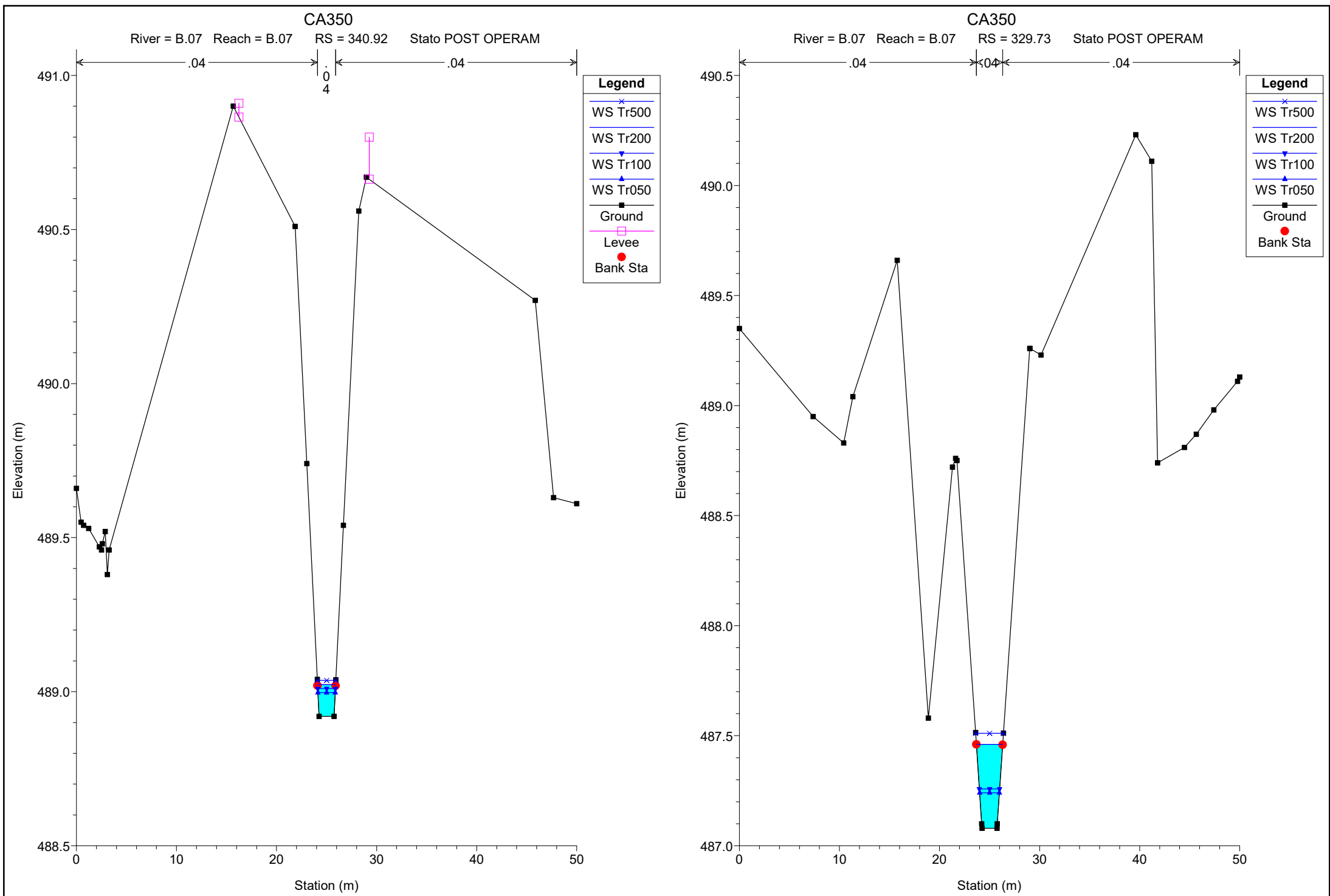


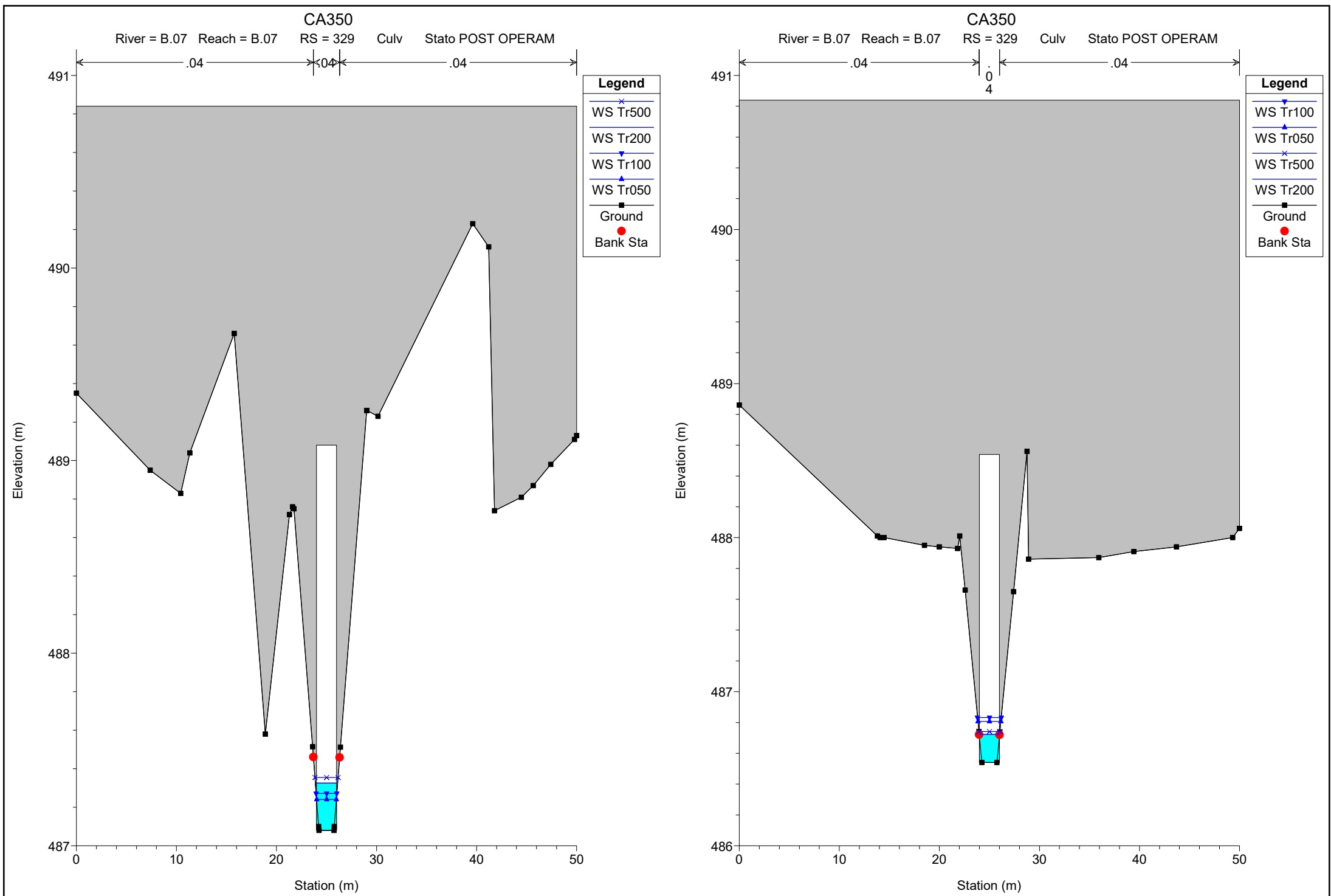


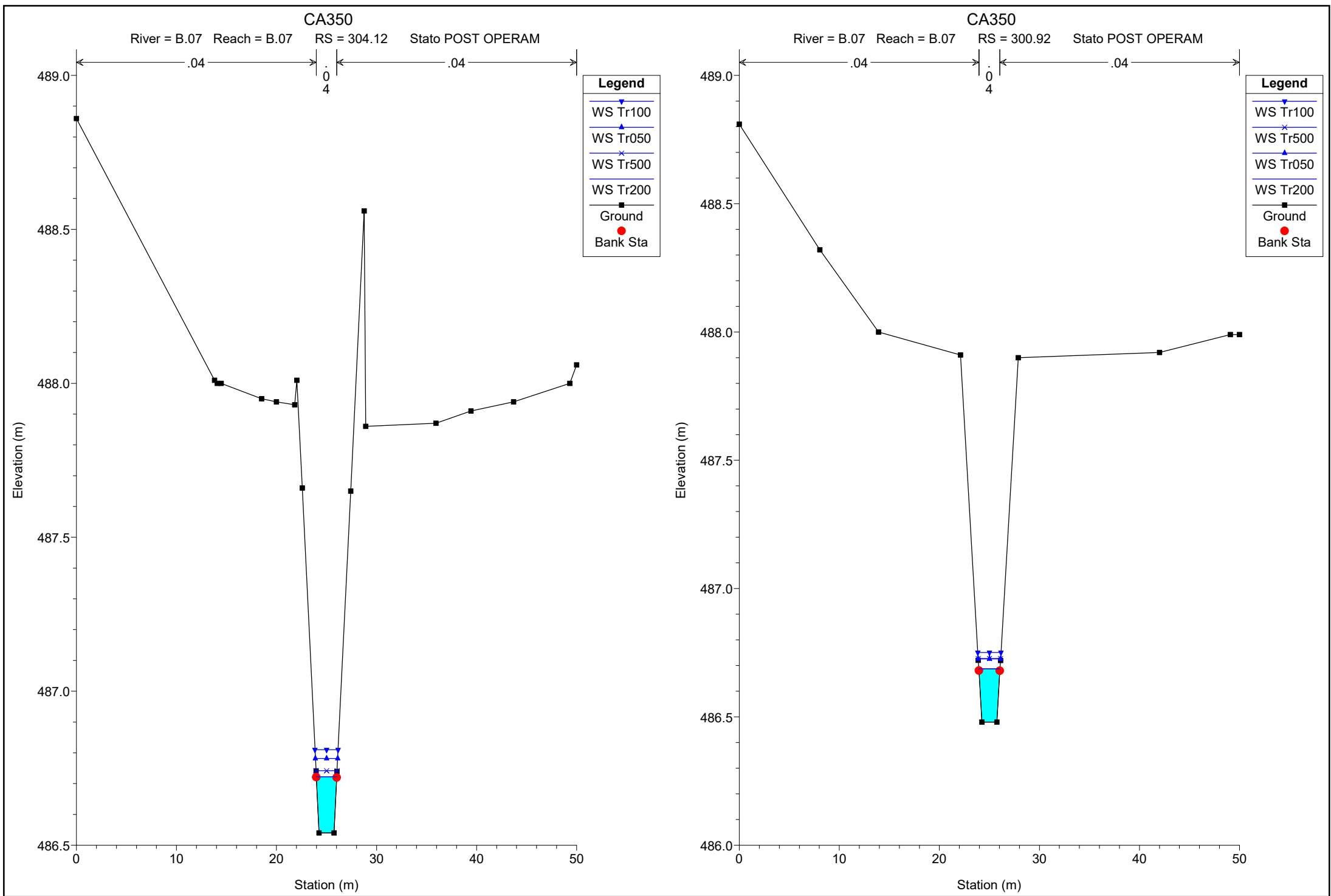


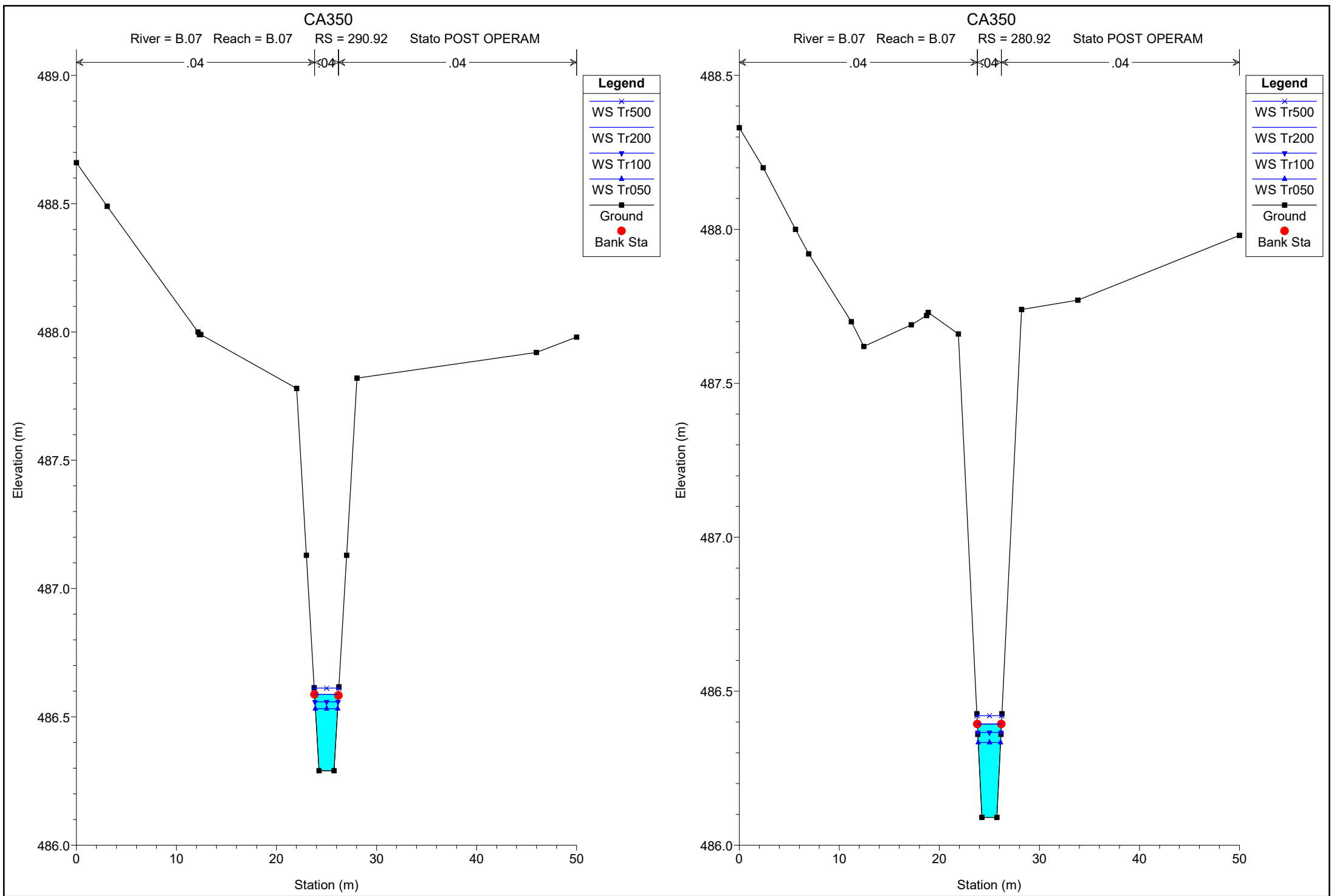


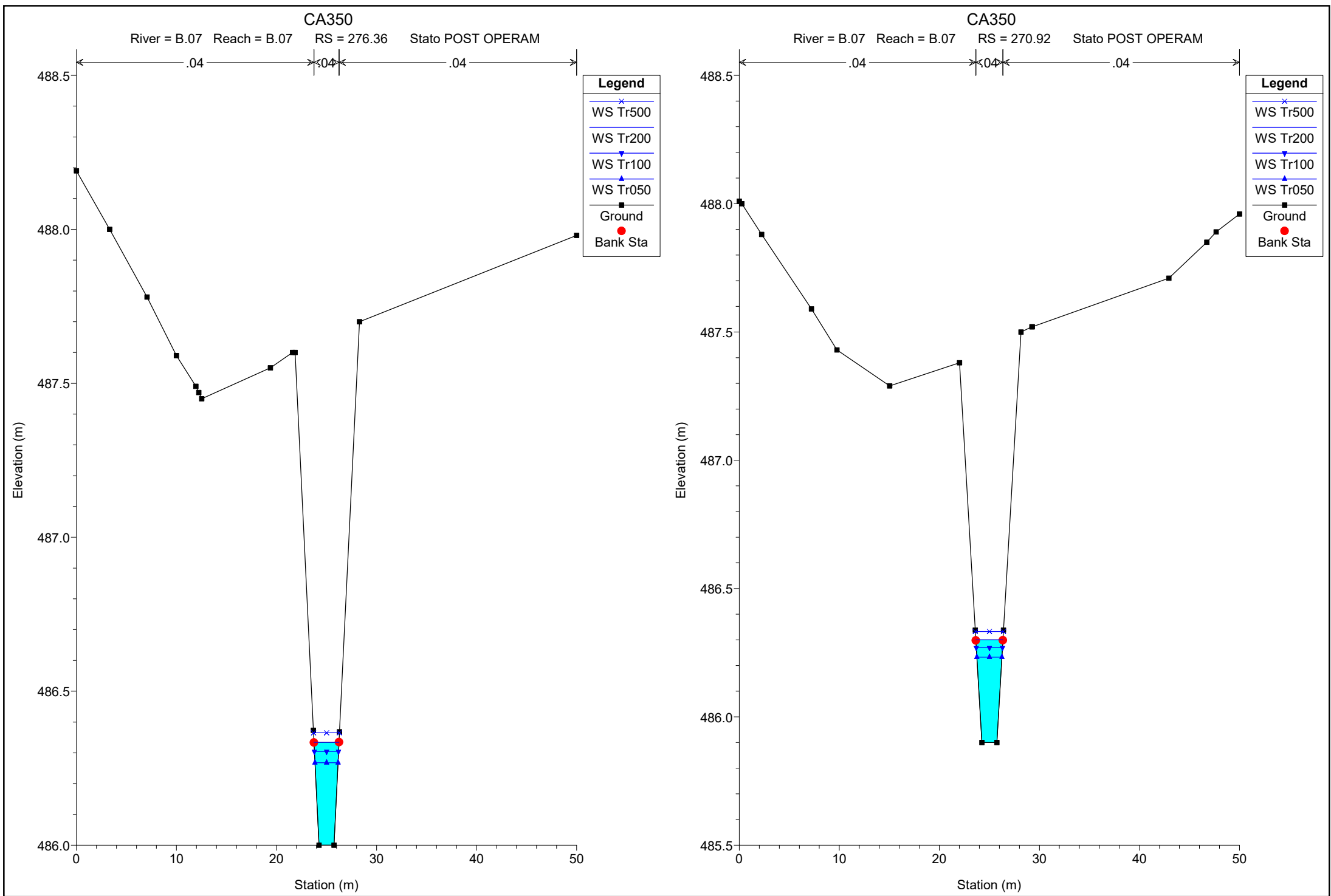




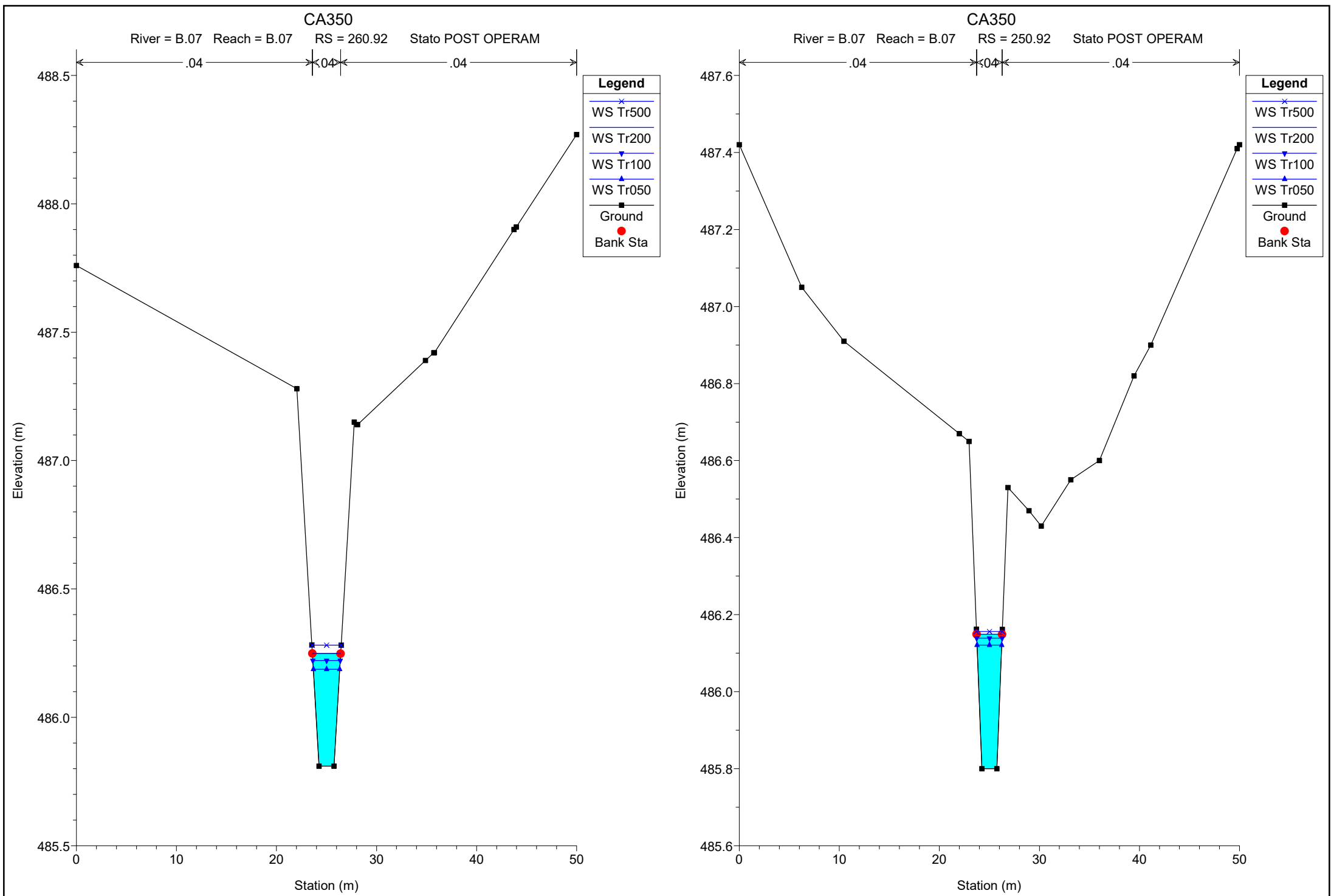


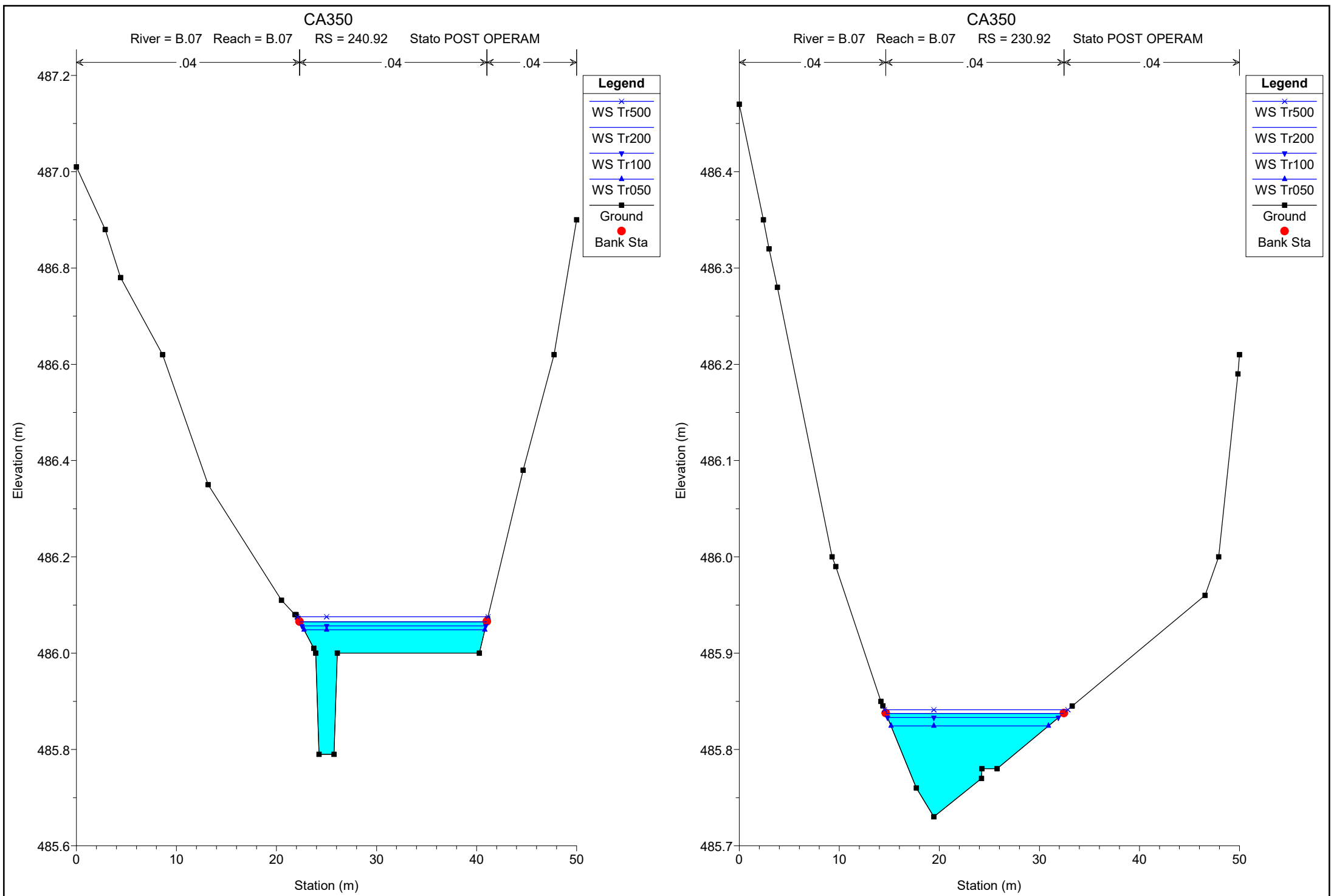


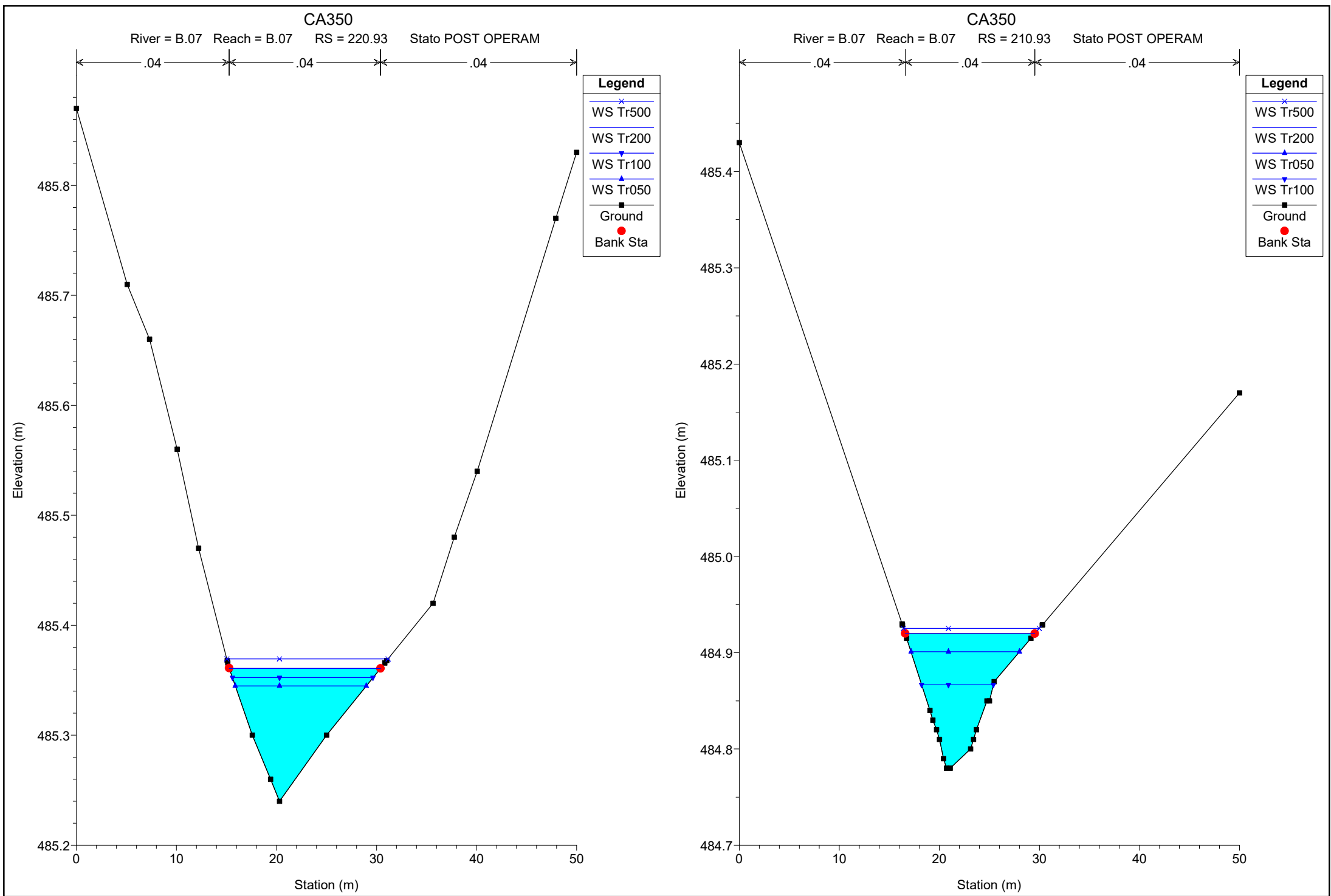


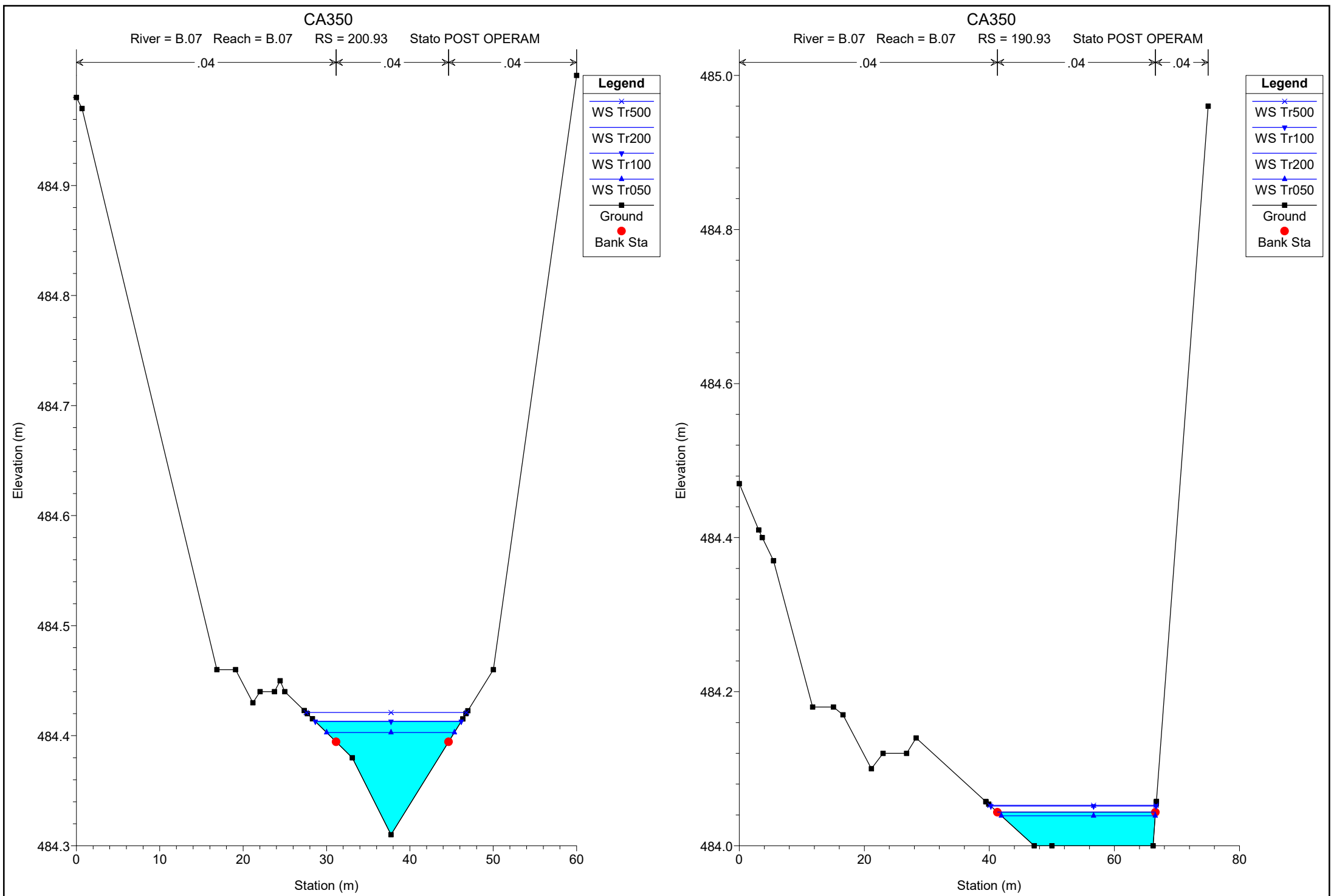


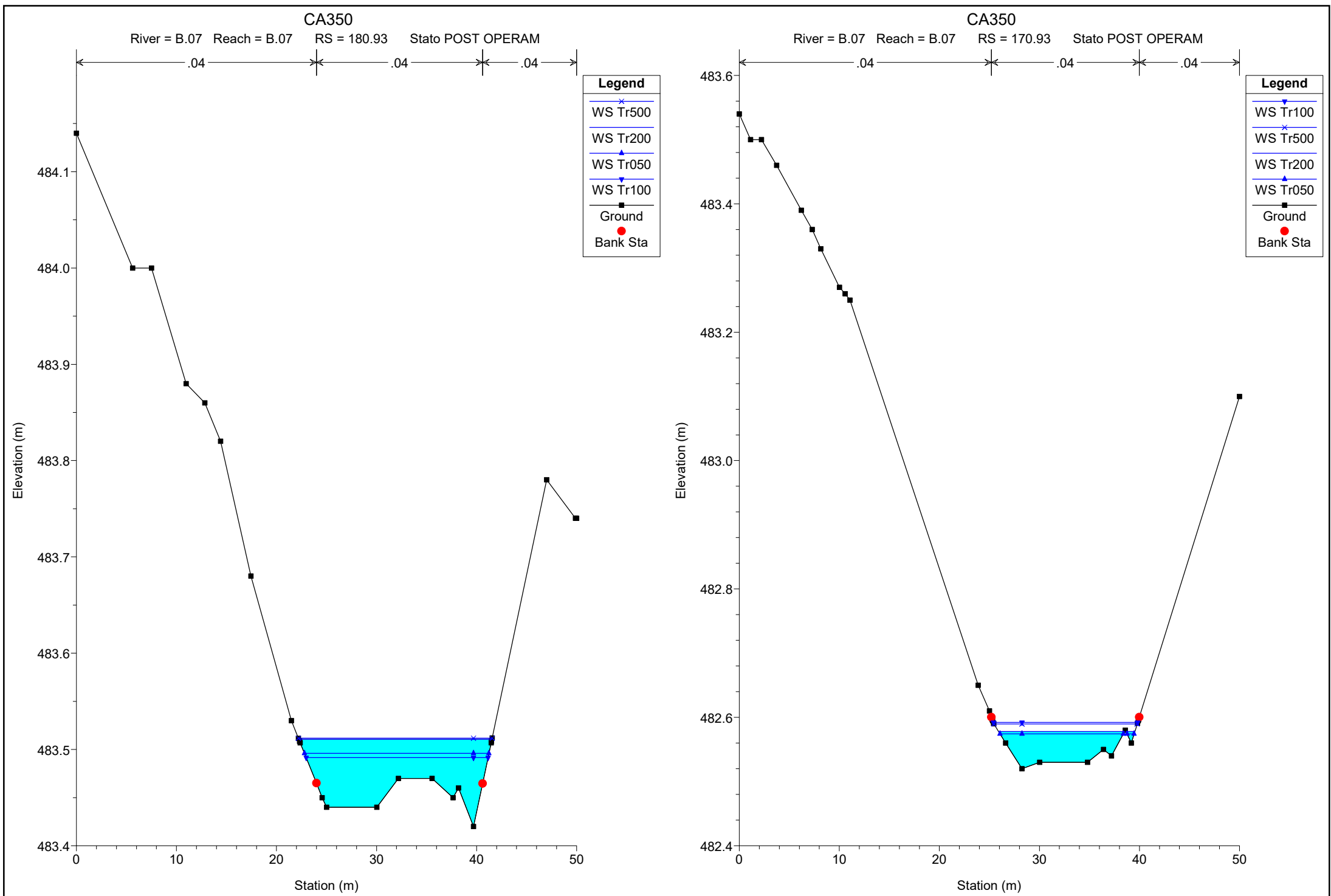


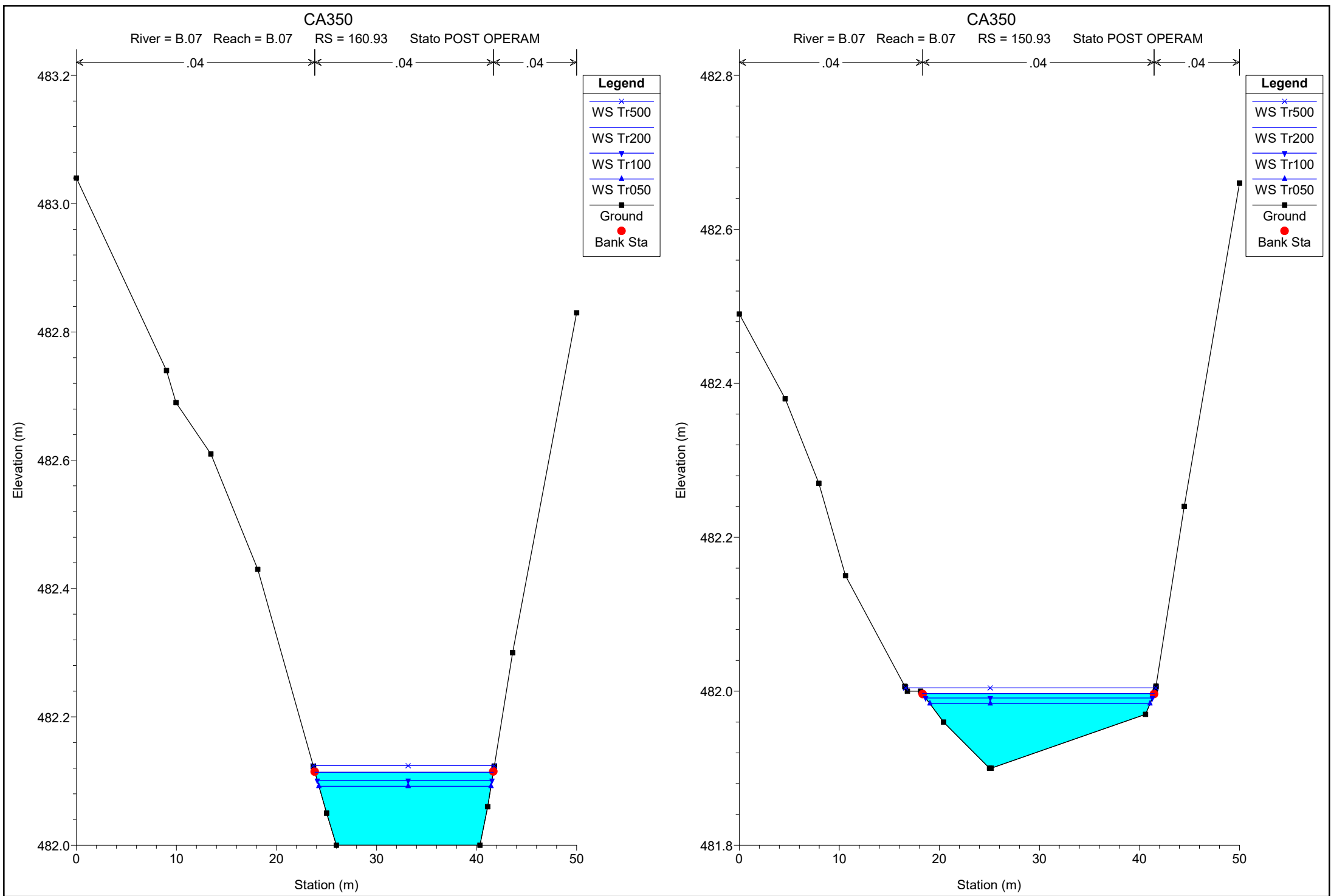


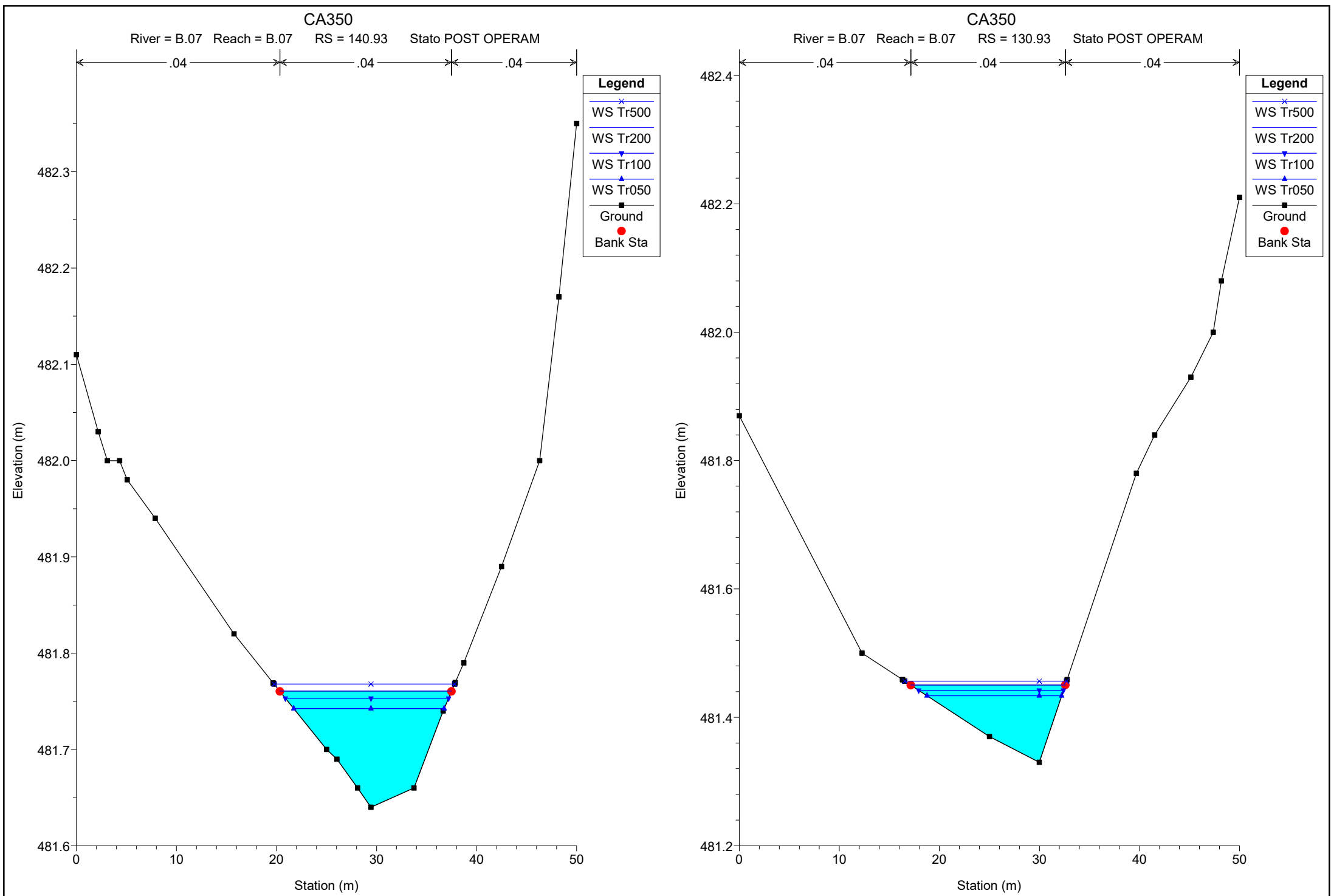


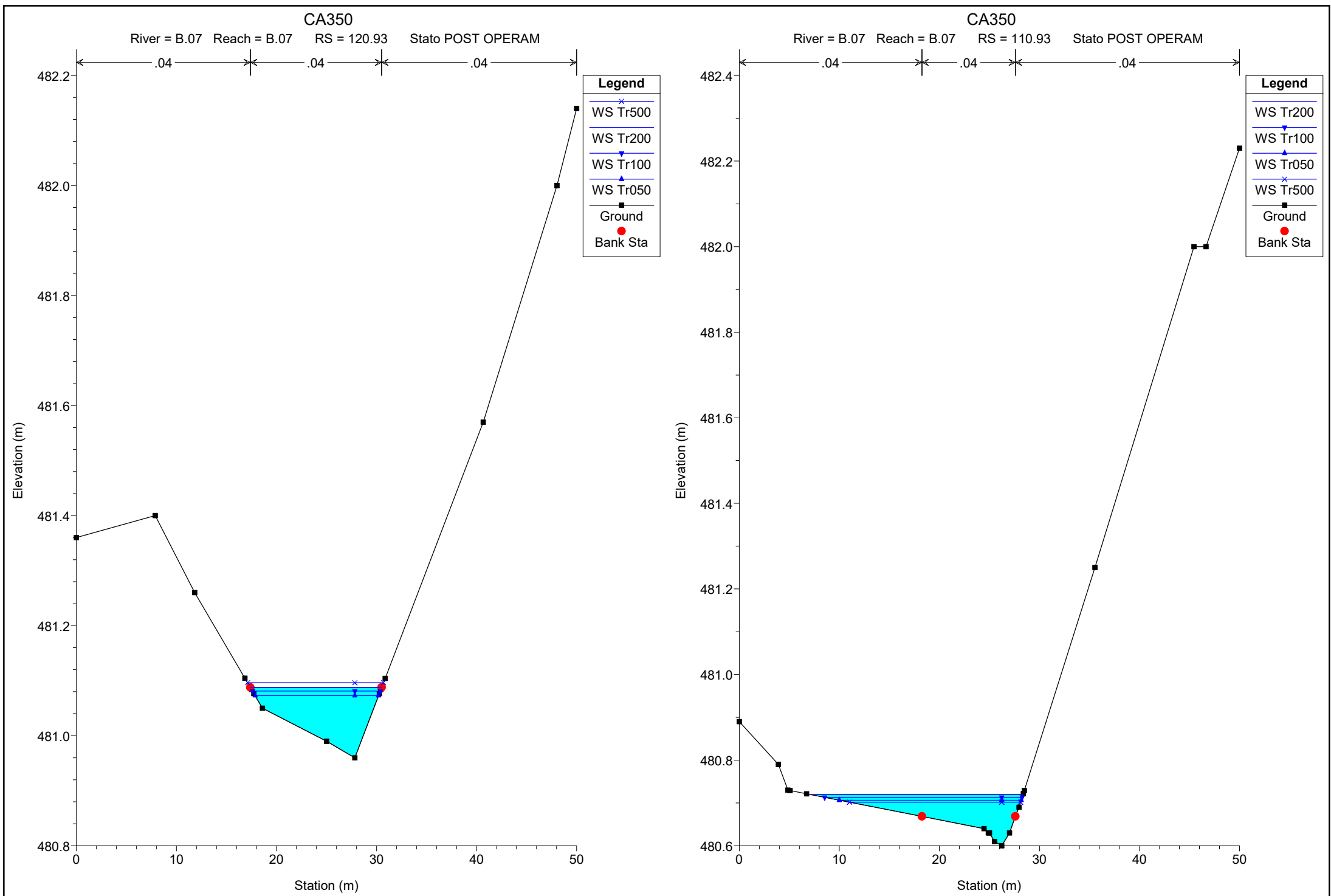




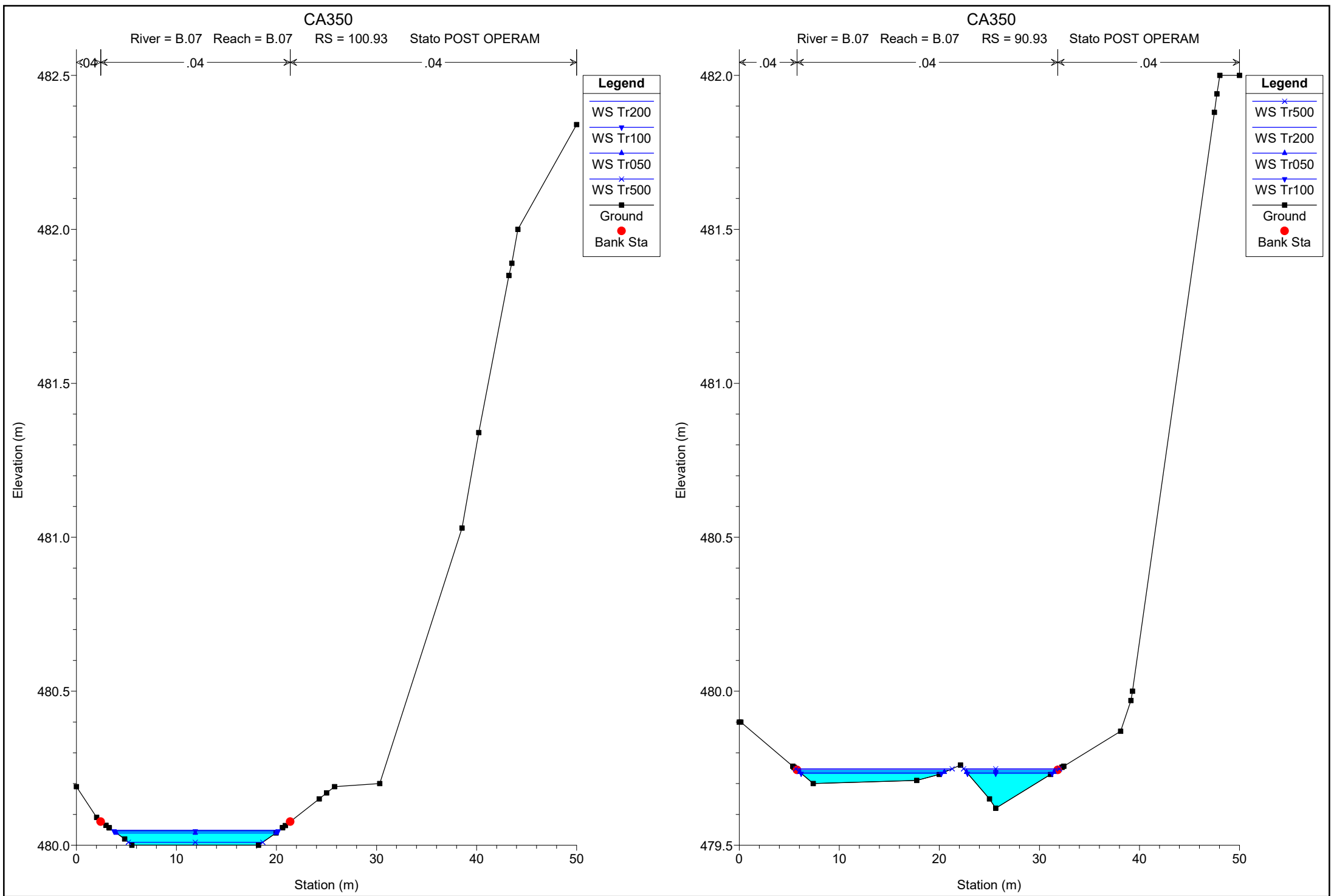


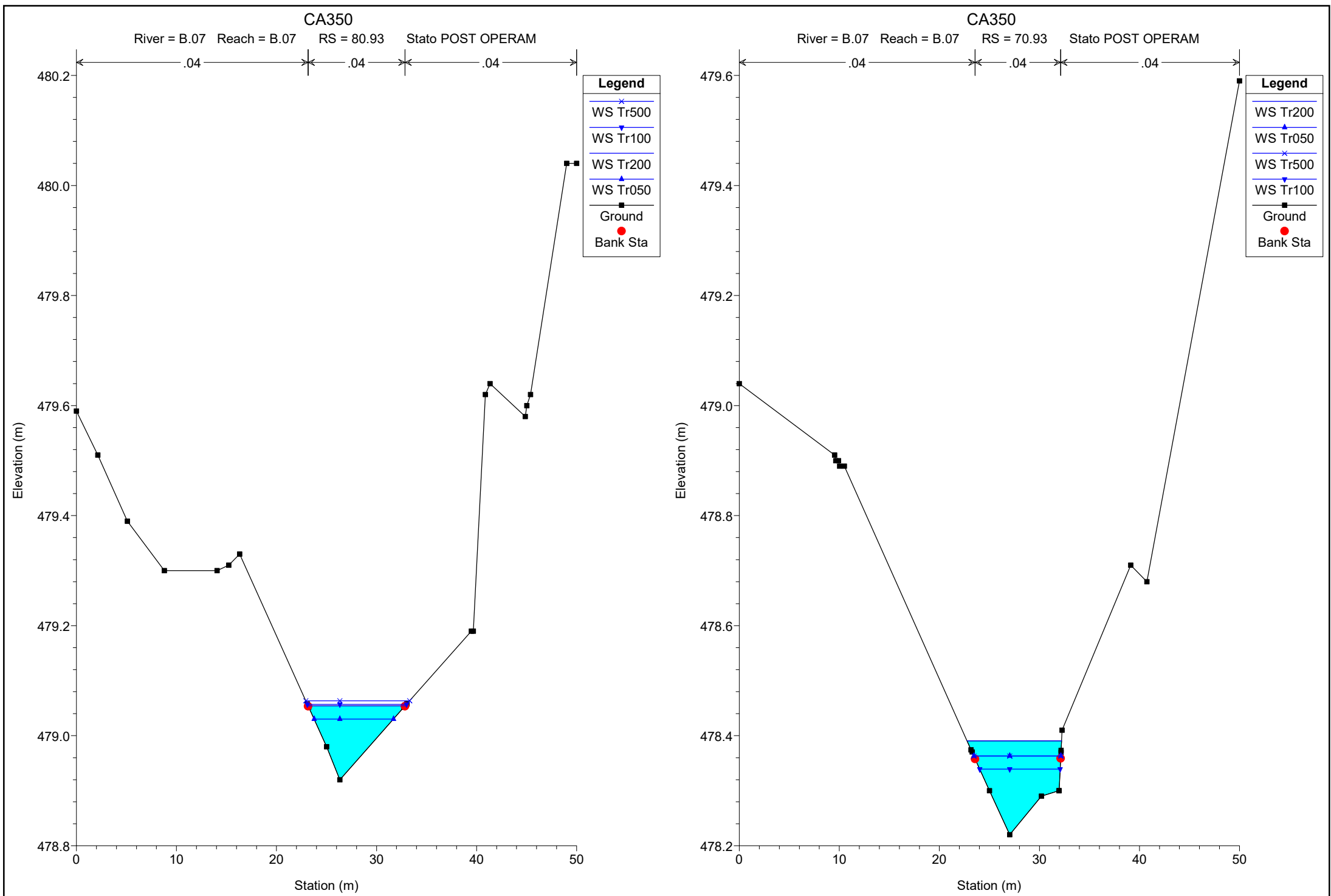


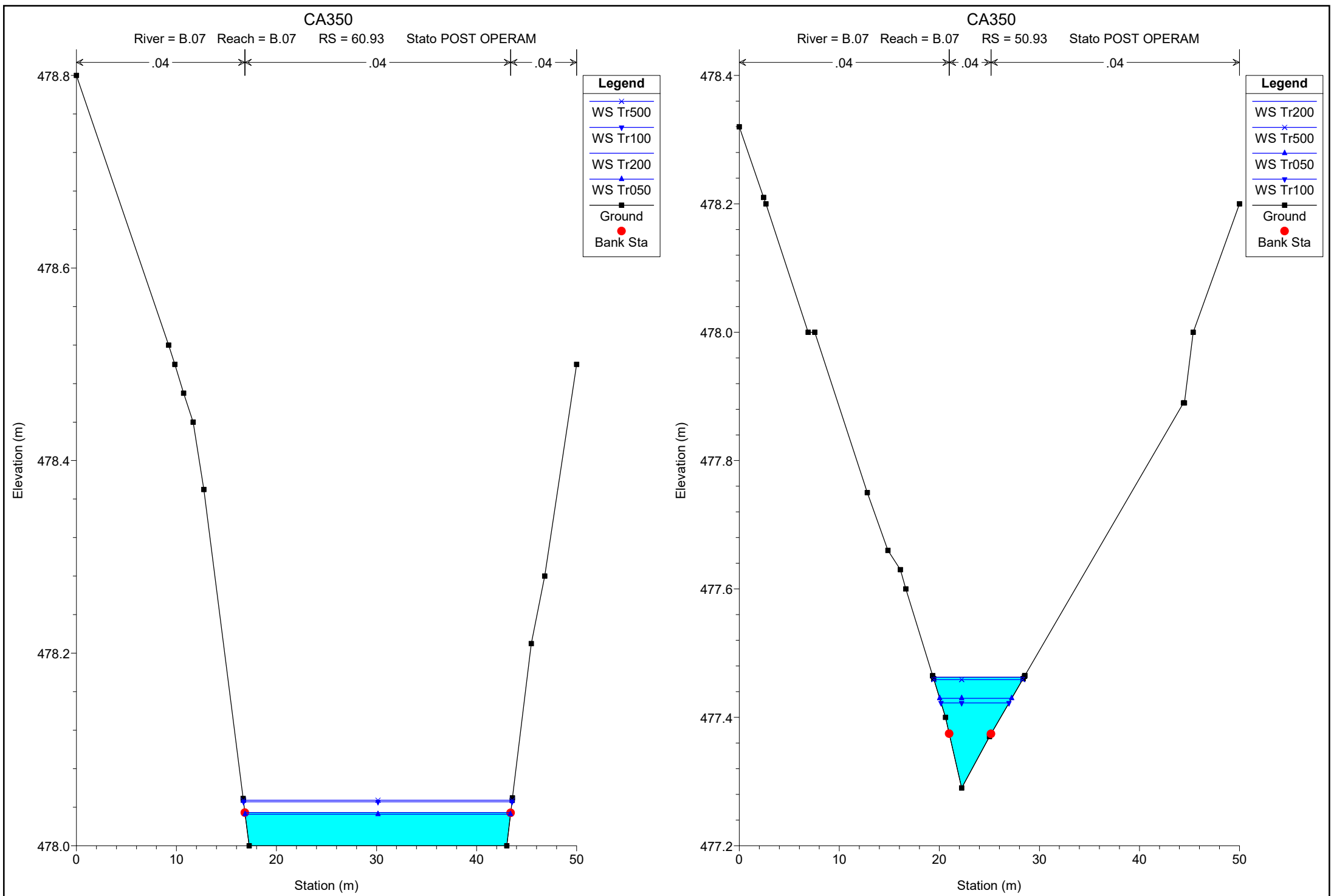


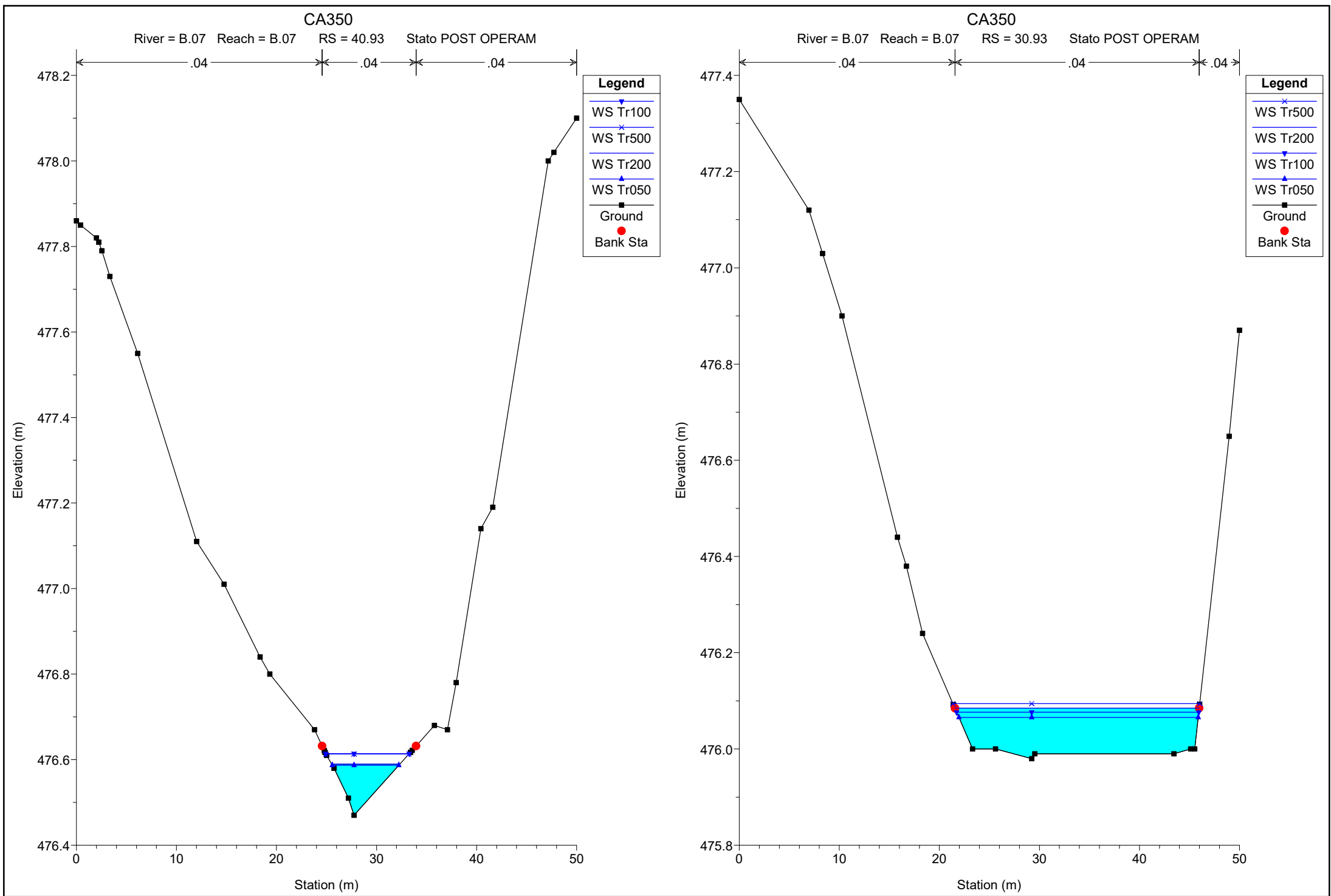


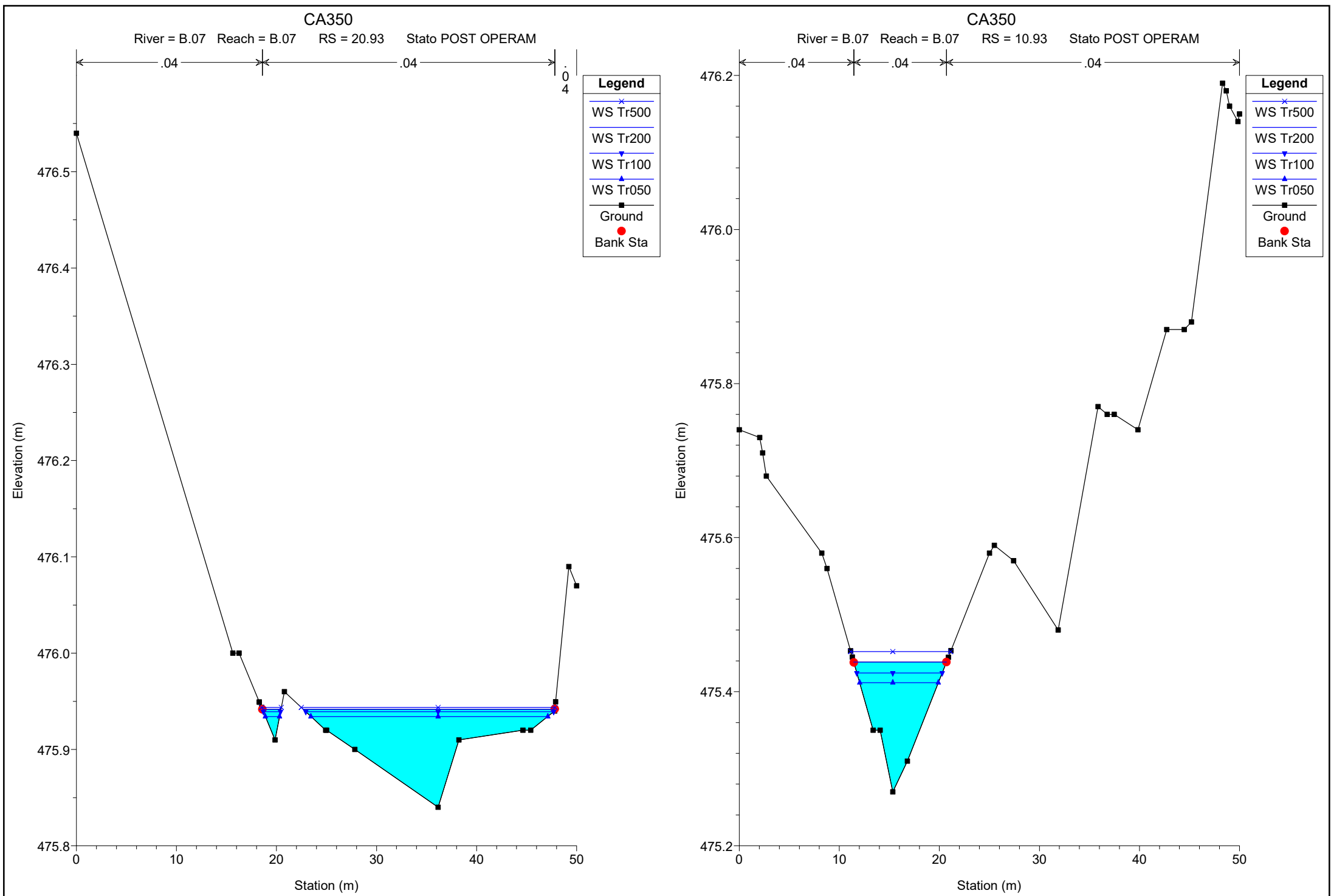






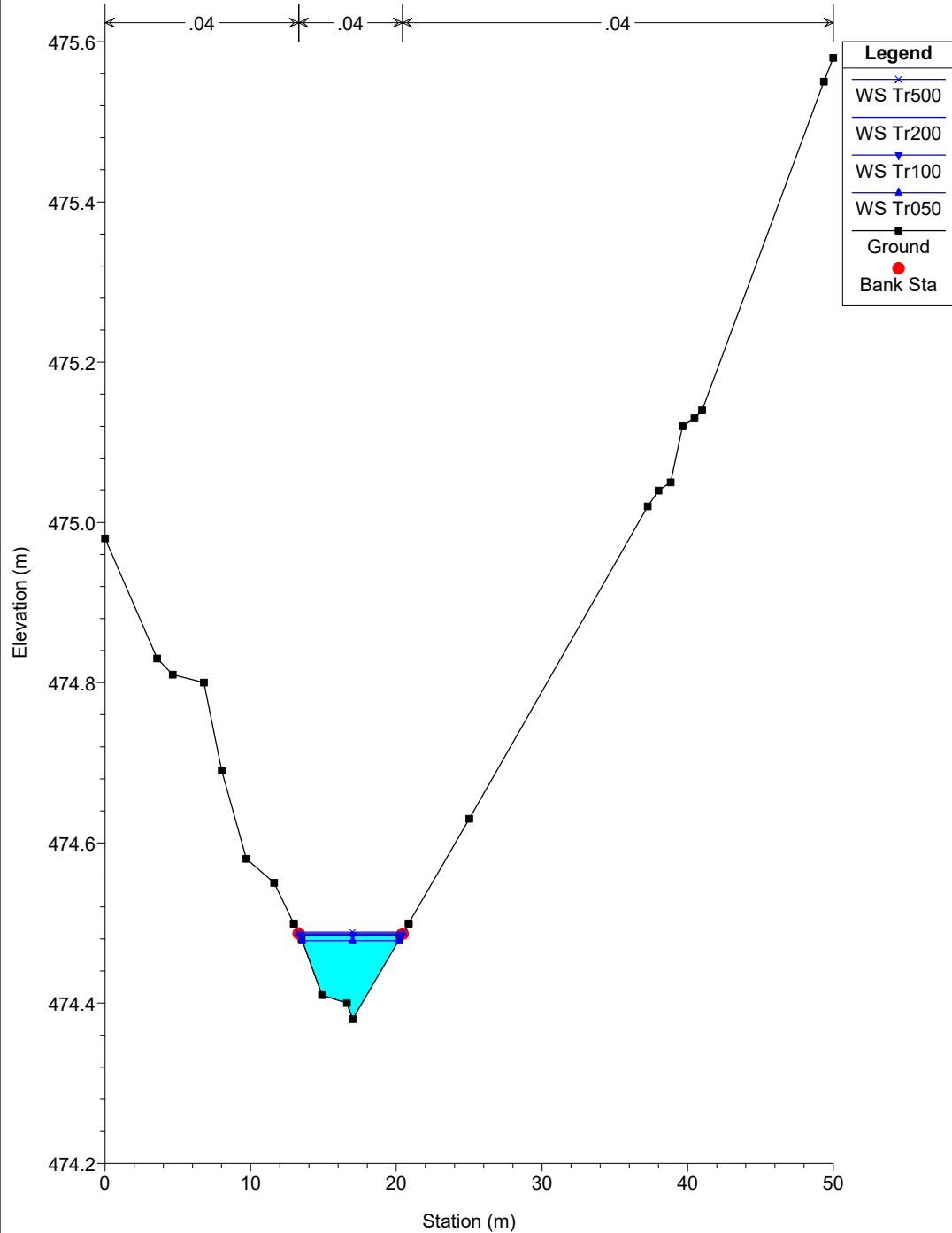






# CA350

River = B.07    Reach = B.07    RS = 0.93    Stato POST OPERAM



River	Reach	River Sta	Profile	E.G. US. (m)	Min El Prs (m)	BR Open Area (m2)	Prs O WS (m)	Q Total (m3/s)	Min El Weir Flow (m)	Q Weir (m3/s)	Delta EG (m)	BR Sluice Coef
B.06	B.06	606	Tr200	459.24	470.27	667.32	457.83	56.01	472.27		-8.62	
B.06	B.06	606	Tr050	458.68	470.27	667.32	457.54	37.34	472.27		-8.91	
B.06	B.06	606	Tr100	458.95	470.27	667.32	457.69	46.31	472.27		-8.77	
B.06	B.06	606	Tr500	459.64	470.27	667.32	457.97	69.58	472.27		0.58	
B.03	B.03	326	Tr200	471.47	491.38	1088.19	470.75	10.55	493.38		3.61	
B.03	B.03	326	Tr050	471.20	491.38	1088.19	470.65	7.65	493.38		3.61	
B.03	B.03	326	Tr100	471.33	491.38	1088.19	470.71	9.08	493.38		3.60	
B.03	B.03	326	Tr500	471.64	491.38	1088.19	470.80	12.50	493.38		3.61	
B.01	B.01	400	Tr200	468.00	471.47	57.39		17.06	472.17		0.14	
B.01	B.01	400	Tr050	467.72	471.47	57.39		12.16	472.17		0.14	
B.01	B.01	400	Tr100	467.87	471.47	57.39		14.56	472.17		0.14	
B.01	B.01	400	Tr500	468.17	471.47	57.39		20.44	472.17		0.13	
B.01	B.01	379	Tr200	467.85	471.47	57.63		17.06	472.17		0.30	
B.01	B.01	379	Tr050	467.57	471.47	57.63		12.16	472.17		0.31	
B.01	B.01	379	Tr100	467.71	471.47	57.63		14.56	472.17		0.30	
B.01	B.01	379	Tr500	468.02	471.47	57.63		20.44	472.17		0.28	

River	Reach	River Sta	Profile	E.G. Elev	W.S. Elev	Vel Head	Frctn Loss	C & E Loss	Q Left	Q Channel	Q Right	Top Width
				(m)	(m)	(m)	(m)	(m)	(m3/s)	(m3/s)	(m3/s)	(m)
B.07	B.07	340.92	Tr200	490.01	489.01	1.00	2.30	0.24		0.64		1.77
B.07	B.07	340.92	Tr050	489.83	488.99	0.85	2.24	0.21		0.43		1.70
B.07	B.07	340.92	Tr100	489.96	489.00	0.96	2.29	0.23		0.54		1.73
B.07	B.07	340.92	Tr500	490.04	489.02	1.02	0.15	0.02		0.76	0.00	1.81
B.07	B.07	329.73	Tr200	487.47	487.26	0.22				0.64		2.02
B.07	B.07	329.73	Tr050	487.38	487.22	0.16				0.43		1.92
B.07	B.07	329.73	Tr100	487.43	487.24	0.19				0.54		1.98
B.07	B.07	329.73	Tr500	487.51	487.46	0.05				0.76		2.63
B.07	B.07	329		Culvert								
B.07	B.07	304.12	Tr200	486.89	486.81	0.08	0.06	0.00	0.00	0.64	0.00	2.30
B.07	B.07	304.12	Tr050	486.82	486.76	0.06	0.06	0.00	0.00	0.43	0.00	2.15
B.07	B.07	304.12	Tr100	486.86	486.78	0.07	0.06	0.00	0.00	0.54	0.00	2.23
B.07	B.07	304.12	Tr500	487.00	486.72	0.28	0.15	0.05		0.76		2.05
B.07	B.07	300.92	Tr200	486.83	486.75	0.08	0.20	0.00	0.00	0.64	0.00	2.30
B.07	B.07	300.92	Tr050	486.76	486.70	0.06	0.18	0.00	0.00	0.43	0.00	2.16
B.07	B.07	300.92	Tr100	486.80	486.73	0.07	0.19	0.00	0.00	0.54	0.00	2.25
B.07	B.07	300.92	Tr500	486.90	486.69	0.21	0.19	0.00	0.00	0.76	0.00	2.12
B.06.1	B.06.1	180.08	Tr200	473.97	473.82	0.15	0.15	0.02		0.86		2.29
B.06.1	B.06.1	180.08	Tr050	473.89	473.77	0.11	0.18	0.02		0.58		2.14
B.06.1	B.06.1	180.08	Tr100	473.93	473.80	0.13	0.16	0.02		0.72		2.22
B.06.1	B.06.1	180.08	Tr500	474.02	473.85	0.17	0.13	0.02	0.00	1.04	0.00	2.38
B.06.1	B.06.1	169.11	Tr200	473.58	473.53	0.05				0.86		2.75
B.06.1	B.06.1	169.11	Tr050	473.47	473.42	0.05				0.58		2.43
B.06.1	B.06.1	169.11	Tr100	473.52	473.48	0.05				0.72		2.60
B.06.1	B.06.1	169.11	Tr500	473.64	473.59	0.05			0.00	1.04	0.00	2.94
B.06.1	B.06.1	169		Culvert								
B.06.1	B.06.1	131.61	Tr200	472.22	471.73	0.49				0.86		1.98
B.06.1	B.06.1	131.61	Tr050	472.09	471.69	0.39				0.58		1.87
B.06.1	B.06.1	131.61	Tr100	472.16	471.71	0.45				0.72		1.92
B.06.1	B.06.1	131.61	Tr500	472.29	471.75	0.54	0.74	0.13	0.00	1.04	0.00	2.04
B.06.1	B.06.1	120.08	Tr200	471.41	471.33	0.08	0.58	0.04		0.86		4.18
B.06.1	B.06.1	120.08	Tr050	471.35	471.28	0.07	0.68	0.03		0.58		4.01
B.06.1	B.06.1	120.08	Tr100	471.38	471.30	0.08	0.64	0.03		0.72		4.09
B.06.1	B.06.1	120.08	Tr500	471.44	471.32	0.12	0.66	0.03		1.04		4.17
B.05	B.05	255.59	Tr200	470.55	470.13	0.42	0.03	0.04		1.48		2.31
B.05	B.05	255.59	Tr050	470.39	470.07	0.32	0.04	0.02		0.96		2.13
B.05	B.05	255.59	Tr100	470.47	470.10	0.37	0.03	0.03		1.21		2.22
B.05	B.05	255.59	Tr500	470.64	470.17	0.47	0.02	0.04		1.84		2.42
B.05	B.05	252.75	Tr200	470.24	470.19	0.05				1.48		3.36
B.05	B.05	252.75	Tr050	470.07	470.02	0.05				0.96		2.86
B.05	B.05	252.75	Tr100	470.15	470.11	0.05				1.21		3.11
B.05	B.05	252.75	Tr500	470.34	470.29	0.05				1.84		3.68
B.05	B.05	250		Culvert								
B.05	B.05	207.77	Tr200	467.99	467.14	0.85	1.57	0.16		1.48		2.10
B.05	B.05	207.77	Tr050	467.76	467.09	0.67	1.52	0.13		0.96		1.96
B.05	B.05	207.77	Tr100	467.89	467.12	0.77	1.55	0.15		1.21		2.03
B.05	B.05	207.77	Tr500	468.12	467.17	0.95	1.59	0.17		1.84		2.19
B.05	B.05	195.59	Tr200	466.26	465.94	0.32	0.94	0.02		1.48		2.41
B.05	B.05	195.59	Tr050	466.11	465.88	0.23	0.94	0.02		0.96		2.23
B.05	B.05	195.59	Tr100	466.19	465.91	0.27	0.94	0.02		1.21		2.32
B.05	B.05	195.59	Tr500	466.35	465.98	0.37	0.94	0.02		1.84		2.51
B.04	B.04	440.83	Tr200	481.23	480.55	0.68	0.10	0.03		1.35		2.12
B.04	B.04	440.83	Tr050	481.20	480.49	0.71	0.12	0.02		0.89		1.92
B.04	B.04	440.83	Tr100	481.27	480.52	0.75	0.11	0.03		1.12		2.00
B.04	B.04	440.83	Tr500	481.31	480.59	0.72	0.09	0.04		1.67		2.22
B.04	B.04	431.04	Tr200	479.36	479.31	0.05				1.35		3.23
B.04	B.04	431.04	Tr050	479.21	479.16	0.05				0.89		2.78
B.04	B.04	431.04	Tr100	479.29	479.24	0.05				1.12		3.01
B.04	B.04	431.04	Tr500	479.45	479.41	0.05				1.67		3.52



River	Reach	River Sta	Profile	E.G. Elev (m)	W.S. Elev (m)	Vel Head (m)	Frctn Loss (m)	C & E Loss (m)	Q Left (m3/s)	Q Channel (m3/s)	Q Right (m3/s)	Top Width (m)
B.04	B.04	420		Culvert								
B.04	B.04	373.9	Tr200	476.79	476.07	0.72	0.37	0.13		1.35		2.10
B.04	B.04	373.9	Tr050	476.60	476.02	0.58	0.33	0.11		0.89		1.96
B.04	B.04	373.9	Tr100	476.71	476.05	0.66	0.36	0.12		1.12		2.03
B.04	B.04	373.9	Tr500	476.90	476.10	0.80	0.38	0.13		1.67		2.18
B.04	B.04	370.83	Tr200	476.30	476.01	0.29	0.52	0.03		1.35		2.38
B.04	B.04	370.83	Tr050	476.16	475.96	0.20	0.50	0.01		0.89		2.23
B.04	B.04	370.83	Tr100	476.24	475.99	0.25	0.51	0.02		1.12		2.30
B.04	B.04	370.83	Tr500	476.39	476.04	0.35	0.53	0.04		1.67		2.47
B.02.2	B.02.2	343.34	Tr200	479.48	479.24	0.24	0.78	0.01		0.58		1.96
B.02.2	B.02.2	343.34	Tr050	479.39	479.22	0.17	0.77	0.01		0.39		1.88
B.02.2	B.02.2	343.34	Tr100	479.44	479.23	0.20	0.77	0.01		0.48		1.92
B.02.2	B.02.2	343.34	Tr500	479.55	479.26	0.29	0.80	0.00		0.70		2.00
B.02.2	B.02.2	337.75	Tr200	478.70	478.39	0.32				0.58		1.91
B.02.2	B.02.2	337.75	Tr050	478.61	478.36	0.26				0.39		1.82
B.02.2	B.02.2	337.75	Tr100	478.66	478.37	0.28				0.48		1.86
B.02.2	B.02.2	337.75	Tr500	478.75	478.41	0.34				0.70		1.97
B.02.2	B.02.2	337		Culvert								
B.02.2	B.02.2	294.43	Tr200	474.62	472.38	2.24				0.58		1.67
B.02.2	B.02.2	294.43	Tr050	474.51	472.36	2.15				0.39		1.62
B.02.2	B.02.2	294.43	Tr100	474.55	472.37	2.19				0.48		1.64
B.02.2	B.02.2	294.43	Tr500	472.79	472.76	0.04	0.04	0.00		0.70		2.00
B.02.2	B.02.2	287.75	Tr200	472.71	472.68	0.03	0.04	0.01		0.58		2.54
B.02.2	B.02.2	287.75	Tr050	472.64	472.61	0.03	0.04	0.01		0.39		2.35
B.02.2	B.02.2	287.75	Tr100	472.68	472.65	0.03	0.04	0.01		0.48		2.44
B.02.2	B.02.2	287.75	Tr500	472.75	472.71	0.04	0.04	0.01		0.70		2.64
B.02.1	B.02.1	262.79	Tr200	482.19	481.84	0.34	0.35	0.32		1.15		2.58
B.02.1	B.02.1	262.79	Tr050	482.08	481.80	0.27	0.38	0.32		0.80		2.46
B.02.1	B.02.1	262.79	Tr100	482.13	481.83	0.31	0.36	0.32		0.97		2.52
B.02.1	B.02.1	262.79	Tr500	482.25	481.86	0.39	0.34	0.32	0.00	1.37	0.00	2.64
B.02.1	B.02.1	261.79	Tr200	481.51	477.96	3.55				1.15		2.06
B.02.1	B.02.1	261.79	Tr050	481.38	477.94	3.45				0.80		2.04
B.02.1	B.02.1	261.79	Tr100	481.45	477.95	3.50				0.97		2.05
B.02.1	B.02.1	261.79	Tr500	481.58	477.97	3.61			0.00	1.37	0.00	2.07
B.02.1	B.02.1	242		Culvert								
B.02.1	B.02.1	241.91	Tr200	477.50	477.06	0.43	0.60	0.09		1.15		2.52
B.02.1	B.02.1	241.91	Tr050	477.36	477.03	0.33	0.58	0.07		0.80		2.43
B.02.1	B.02.1	241.91	Tr100	477.42	477.05	0.36	0.58	0.07		0.97		2.49
B.02.1	B.02.1	241.91	Tr500	477.58	477.08	0.50	0.62	0.10	0.00	1.37	0.00	2.58
B.02.1	B.02.1	231.65	Tr200	476.81	476.67	0.13	0.45	0.01		1.15		2.87
B.02.1	B.02.1	231.65	Tr050	476.72	476.61	0.12	0.46	0.01		0.80		2.68
B.02.1	B.02.1	231.65	Tr100	476.76	476.65	0.12	0.44	0.01		0.97		2.80
B.02.1	B.02.1	231.65	Tr500	476.85	476.69	0.16	0.44	0.01	0.00	1.37	0.00	2.94



River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
B.07	B.07	190.93	Tr200	0.64	484.00	484.05	484.05	484.07	0.038029	0.59	1.09	26.02	0.92
B.07	B.07	190.93	Tr050	0.43	484.00	484.04	484.04	484.05	0.050581	0.56	0.76	24.15	1.01
B.07	B.07	190.93	Tr100	0.54	484.00	484.04	484.04	484.06	0.047360	0.60	0.91	24.98	1.00
B.07	B.07	190.93	Tr500	0.76	484.00	484.05	484.05	484.07	0.044068	0.65	1.16	26.43	1.00
B.07	B.07	180.93	Tr200	0.64	483.42	483.50	483.50	483.53	0.079655	0.84	0.76	18.44	1.32
B.07	B.07	180.93	Tr050	0.43	483.42	483.49	483.50	483.51	0.057678	0.66	0.65	18.10	1.10
B.07	B.07	180.93	Tr100	0.54	483.42	483.50	483.50	483.52	0.061296	0.73	0.74	18.38	1.16
B.07	B.07	180.93	Tr500	0.76	483.42	483.50	483.51	483.54	0.065612	0.84	0.90	18.89	1.23
B.07	B.07	170.93	Tr200	0.64	482.52	482.59	482.60	482.64	0.100527	1.00	0.64	14.17	1.51
B.07	B.07	170.93	Tr050	0.43	482.52	482.57	482.59	482.62	0.152754	1.01	0.42	12.67	1.77
B.07	B.07	170.93	Tr100	0.54	482.52	482.58	482.60	482.63	0.139338	1.05	0.51	13.51	1.73
B.07	B.07	170.93	Tr500	0.76	482.52	482.59	482.61	482.66	0.124468	1.14	0.67	14.29	1.69
B.07	B.07	160.93	Tr200	0.64	482.00	482.10	482.06	482.11	0.005634	0.39	1.65	17.52	0.40
B.07	B.07	160.93	Tr050	0.43	482.00	482.08	482.04	482.09	0.005297	0.33	1.31	16.95	0.38
B.07	B.07	160.93	Tr100	0.54	482.00	482.09	482.05	482.10	0.005666	0.37	1.48	17.24	0.40
B.07	B.07	160.93	Tr500	0.76	482.00	482.11	482.06	482.12	0.006057	0.42	1.80	17.76	0.42
B.07	B.07	150.93	Tr200	0.64	481.90	481.99	481.98	482.01	0.025310	0.55	1.16	22.52	0.77
B.07	B.07	150.93	Tr050	0.43	481.90	481.98	481.97	481.99	0.025990	0.48	0.89	21.40	0.76
B.07	B.07	150.93	Tr100	0.54	481.90	481.98	481.98	482.00	0.025066	0.52	1.04	22.04	0.76
B.07	B.07	150.93	Tr500	0.76	481.90	482.00	481.99	482.01	0.023769	0.57	1.33	23.17	0.76
B.07	B.07	140.93	Tr200	0.64	481.64	481.75	481.74	481.77	0.021986	0.60	1.06	16.24	0.75
B.07	B.07	140.93	Tr050	0.43	481.64	481.73		481.75	0.022596	0.55	0.78	14.08	0.74
B.07	B.07	140.93	Tr100	0.54	481.64	481.74	481.73	481.76	0.022622	0.58	0.93	15.21	0.75
B.07	B.07	140.93	Tr500	0.76	481.64	481.76	481.75	481.78	0.022763	0.64	1.19	17.16	0.77
B.07	B.07	130.93	Tr200	0.64	481.33	481.44	481.44	481.47	0.042075	0.77	0.83	14.34	1.02
B.07	B.07	130.93	Tr050	0.43	481.33	481.42	481.42	481.45	0.042352	0.70	0.62	12.42	1.00
B.07	B.07	130.93	Tr100	0.54	481.33	481.43	481.43	481.46	0.041014	0.73	0.74	13.56	1.00
B.07	B.07	130.93	Tr500	0.76	481.33	481.45	481.45	481.48	0.040250	0.79	0.96	15.39	1.01
B.07	B.07	120.93	Tr200	0.64	480.96	481.08	481.08	481.11	0.031200	0.74	0.87	12.81	0.90
B.07	B.07	120.93	Tr050	0.43	480.96	481.07	481.06	481.09	0.026982	0.61	0.70	12.08	0.82
B.07	B.07	120.93	Tr100	0.54	480.96	481.07	481.07	481.10	0.030608	0.69	0.78	12.44	0.88
B.07	B.07	120.93	Tr500	0.76	480.96	481.09	481.09	481.12	0.032900	0.80	0.95	13.14	0.94
B.07	B.07	110.93	Tr200	0.64	480.60	480.72	480.72	480.74	0.044389	0.68	0.95	20.49	1.01
B.07	B.07	110.93	Tr050	0.43	480.60	480.70	480.70	480.72	0.052197	0.65	0.66	16.92	1.06
B.07	B.07	110.93	Tr100	0.54	480.60	480.71	480.71	480.73	0.044095	0.65	0.83	19.18	0.99
B.07	B.07	110.93	Tr500	0.76	480.60	480.72	480.72	480.75	0.042189	0.69	1.10	22.15	0.99
B.07	B.07	100.93	Tr200	0.64	480.00	480.05	480.06	480.09	0.102159	0.95	0.67	16.48	1.50
B.07	B.07	100.93	Tr050	0.43	480.00	480.06	480.05	480.07	0.021640	0.50	0.86	17.40	0.71
B.07	B.07	100.93	Tr100	0.54	480.00	480.04	480.05	480.08	0.104271	0.90	0.60	16.11	1.49
B.07	B.07	100.93	Tr500	0.76	480.00	480.05	480.07	480.10	0.108728	1.03	0.74	16.80	1.56
B.07	B.07	90.93	Tr200	0.64	479.62	479.74	479.74	479.76	0.036851	0.60	1.07	24.52	0.91
B.07	B.07	90.93	Tr050	0.43	479.62	479.73	479.73	479.75	0.054318	0.60	0.72	21.64	1.05
B.07	B.07	90.93	Tr100	0.54	479.62	479.73	479.73	479.76	0.059427	0.67	0.81	22.47	1.12
B.07	B.07	90.93	Tr500	0.76	479.62	479.74	479.74	479.77	0.051204	0.70	1.08	24.56	1.07
B.07	B.07	80.93	Tr200	0.64	478.92	479.04	479.06	479.13	0.129944	1.34	0.48	8.35	1.79
B.07	B.07	80.93	Tr050	0.43	478.92	479.03	479.04	479.08	0.081859	1.02	0.42	7.84	1.40
B.07	B.07	80.93	Tr100	0.54	478.92	479.04	479.06	479.10	0.073132	1.03	0.52	8.73	1.35
B.07	B.07	80.93	Tr500	0.76	478.92	479.05	479.07	479.12	0.082458	1.18	0.65	9.71	1.46
B.07	B.07	70.93	Tr200	0.64	478.22	478.37	478.36	478.40	0.024949	0.80	0.80	8.93	0.84
B.07	B.07	70.93	Tr050	0.43	478.22	478.35	478.34	478.38	0.023076	0.68	0.63	8.40	0.79
B.07	B.07	70.93	Tr100	0.54	478.22	478.34	478.35	478.39	0.067678	1.05	0.52	8.00	1.31
B.07	B.07	70.93	Tr500	0.76	478.22	478.36	478.37	478.42	0.060521	1.13	0.67	8.52	1.28
B.07	B.07	60.93	Tr200	0.64	478.00	478.04	478.04	478.06	0.050189	0.63	1.01	26.66	1.04
B.07	B.07	60.93	Tr050	0.43	478.00	478.03	478.03	478.05	0.050663	0.54	0.79	26.46	1.00
B.07	B.07	60.93	Tr100	0.54	478.00	478.03	478.03	478.05	0.061139	0.63	0.86	26.52	1.11
B.07	B.07	60.93	Tr500	0.76	478.00	478.05	478.05	478.07	0.035460	0.61	1.25	26.87	0.90
B.07	B.07	50.93	Tr200	0.64	477.29	477.44	477.46	477.50	0.060277	1.08	0.59	7.98	1.27
B.07	B.07	50.93	Tr050	0.43	477.29	477.42	477.43	477.47	0.063787	1.01	0.43	6.70	1.27
B.07	B.07	50.93	Tr100	0.54	477.29	477.44	477.45	477.49	0.052114	0.98	0.55	7.67	1.17
B.07	B.07	50.93	Tr500	0.76	477.29	477.44	477.47	477.53	0.087508	1.30	0.58	7.93	1.53
B.07	B.07	40.93	Tr200	0.64	476.47	476.60	476.63	476.69	0.113591	1.34	0.48	7.55	1.70
B.07	B.07	40.93	Tr050	0.43	476.47	476.58	476.61	476.66	0.107135	1.19	0.36	6.49	1.61
B.07	B.07	40.93	Tr100	0.54	476.47	476.59	476.62	476.69	0.136108	1.38	0.39	6.79	1.83
B.07	B.07	40.93	Tr500	0.76	476.47	476.62	476.64	476.70	0.078875	1.22	0.62	8.62	1.45



River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
B.06.1	B.06.1	196.3	Tr200	0.86	474.90	475.10	475.13	475.23	0.042473	1.58	0.54	3.12	1.21
B.06.1	B.06.1	196.3	Tr050	0.58	474.90	475.07	475.08	475.16	0.040590	1.36	0.42	2.94	1.15
B.06.1	B.06.1	196.3	Tr100	0.72	474.90	475.09	475.11	475.20	0.041397	1.48	0.49	3.03	1.18
B.06.1	B.06.1	196.3	Tr500	1.04	474.90	475.13	475.16	475.27	0.042885	1.69	0.62	3.22	1.23
B.06.1	B.06.1	186.3	Tr200	0.86	474.28	474.46	474.52	474.65	0.080362	1.97	0.44	2.90	1.62
B.06.1	B.06.1	186.3	Tr050	0.58	474.28	474.42	474.47	474.58	0.087768	1.77	0.33	2.75	1.63
B.06.1	B.06.1	186.3	Tr100	0.72	474.28	474.44	474.49	474.62	0.083992	1.88	0.38	2.83	1.63
B.06.1	B.06.1	186.3	Tr500	1.04	474.28	474.48	474.55	474.70	0.077958	2.08	0.50	2.98	1.62
B.06.1	B.06.1	176.3	Tr200	0.86	473.49	473.66	473.72	473.86	0.078144	1.99	0.43	2.71	1.59
B.06.1	B.06.1	176.3	Tr050	0.58	473.49	473.63	473.67	473.77	0.073394	1.69	0.34	2.65	1.50
B.06.1	B.06.1	176.3	Tr100	0.72	473.49	473.64	473.70	473.82	0.076218	1.85	0.39	2.68	1.55
B.06.1	B.06.1	176.3	Tr500	1.04	473.49	473.68	473.75	473.91	0.078742	2.13	0.49	2.75	1.62
B.06.1	B.06.1	166.3	Tr200	0.86	472.62	472.79	472.86	473.02	0.090279	2.12	0.41	2.54	1.69
B.06.1	B.06.1	166.3	Tr050	0.58	472.62	472.75	472.80	472.93	0.096499	1.88	0.31	2.48	1.70
B.06.1	B.06.1	166.3	Tr100	0.72	472.62	472.77	472.83	472.98	0.092652	2.00	0.36	2.51	1.69
B.06.1	B.06.1	166.3	Tr500	1.04	472.62	472.81	472.89	473.07	0.088971	2.26	0.46	2.58	1.71
B.06.1	B.06.1	156.3	Tr200	0.86	471.77	471.95	472.01	472.16	0.080581	2.06	0.42	2.50	1.61
B.06.1	B.06.1	156.3	Tr050	0.58	471.77	471.91	471.96	472.07	0.076368	1.75	0.33	2.45	1.52
B.06.1	B.06.1	156.3	Tr100	0.72	471.77	471.93	471.98	472.12	0.078871	1.92	0.38	2.47	1.57
B.06.1	B.06.1	156.3	Tr500	1.04	471.77	471.97	472.04	472.22	0.081577	2.21	0.47	2.53	1.64
B.06.1	B.06.1	146.3	Tr200	0.86	471.46	471.70	471.70	471.80	0.028002	1.41	0.61	2.96	1.00
B.06.1	B.06.1	146.3	Tr050	0.58	471.46	471.64	471.64	471.73	0.029516	1.26	0.46	2.79	0.99
B.06.1	B.06.1	146.3	Tr100	0.72	471.46	471.67	471.67	471.76	0.028866	1.35	0.53	2.88	1.00
B.06.1	B.06.1	146.3	Tr500	1.04	471.46	471.72	471.72	471.84	0.027676	1.50	0.69	3.05	1.00
B.06.1	B.06.1	136.3	Tr200	0.86	471.00	471.33	471.23	471.38	0.009929	1.03	0.84	2.74	0.59
B.06.1	B.06.1	136.3	Tr050	0.58	471.00	471.26	471.18	471.30	0.009644	0.89	0.65	2.66	0.57
B.06.1	B.06.1	136.3	Tr100	0.72	471.00	471.30	471.21	471.34	0.009667	0.96	0.75	2.70	0.58
B.06.1	B.06.1	136.3	Tr500	1.04	471.00	471.37	471.26	471.43	0.010031	1.10	0.95	2.78	0.60
B.06.1	B.06.1	126.3	Tr200	0.86	470.86	471.10	471.10	471.22	0.029063	1.49	0.58	2.51	0.99
B.06.1	B.06.1	126.3	Tr050	0.58	470.86	471.05	471.05	471.14	0.031237	1.32	0.44	2.45	1.00
B.06.1	B.06.1	126.3	Tr100	0.72	470.86	471.07	471.07	471.18	0.030831	1.42	0.51	2.48	1.01
B.06.1	B.06.1	126.3	Tr500	1.04	470.86	471.13	471.13	471.26	0.028858	1.58	0.66	2.55	1.00
B.06.1	B.06.1	116.3	Tr200	0.86	469.96	470.08	470.20	470.53	0.264905	2.95	0.29	2.57	2.80
B.06.1	B.06.1	116.3	Tr050	0.58	469.96	470.05	470.14	470.40	0.285891	2.62	0.22	2.49	2.81
B.06.1	B.06.1	116.3	Tr100	0.72	469.96	470.07	470.17	470.46	0.266546	2.77	0.26	2.53	2.77
B.06.1	B.06.1	116.3	Tr500	1.04	469.96	470.10	470.23	470.59	0.245976	3.09	0.34	2.62	2.75
B.06.1	B.06.1	106.3	Tr200	0.86	469.62	469.86	469.86	469.96	0.029514	1.43	0.60	3.00	1.02
B.06.1	B.06.1	106.3	Tr050	0.58	469.62	469.81	469.81	469.89	0.031197	1.27	0.46	2.83	1.01
B.06.1	B.06.1	106.3	Tr100	0.72	469.62	469.83	469.83	469.93	0.029537	1.35	0.54	2.92	1.00
B.06.1	B.06.1	106.3	Tr500	1.04	469.62	469.89	469.89	470.00	0.027956	1.49	0.70	3.11	1.01
B.06.1	B.06.1	96.3	Tr200	0.86	469.08	469.25	469.32	469.47	0.089003	2.09	0.41	2.59	1.67
B.06.1	B.06.1	96.3	Tr050	0.58	469.08	469.21	469.27	469.38	0.090668	1.83	0.32	2.51	1.64
B.06.1	B.06.1	96.3	Tr100	0.72	469.08	469.23	469.29	469.43	0.092235	1.98	0.36	2.55	1.68
B.06.1	B.06.1	96.3	Tr500	1.04	469.08	469.27	469.35	469.53	0.089094	2.24	0.47	2.64	1.70
B.06.1	B.06.1	86.3	Tr200	0.86	467.90	468.06	468.15	468.36	0.139861	2.46	0.35	2.42	2.07
B.06.1	B.06.1	86.3	Tr050	0.58	467.90	468.02	468.09	468.26	0.142472	2.14	0.27	2.38	2.02
B.06.1	B.06.1	86.3	Tr100	0.72	467.90	468.04	468.12	468.31	0.138147	2.29	0.31	2.40	2.03
B.06.1	B.06.1	86.3	Tr500	1.04	467.90	468.07	468.18	468.42	0.137338	2.62	0.40	2.45	2.08
B.06.1	B.06.1	76.3	Tr200	0.86	467.07	467.44	467.46	467.63	0.041875	1.92	0.45	1.44	1.10
B.06.1	B.06.1	76.3	Tr050	0.58	467.07	467.36	467.38	467.51	0.043382	1.74	0.33	1.34	1.11
B.06.1	B.06.1	76.3	Tr100	0.72	467.07	467.40	467.42	467.57	0.042942	1.85	0.39	1.39	1.11
B.06.1	B.06.1	76.3	Tr500	1.04	467.07	467.48	467.51	467.69	0.041236	2.02	0.52	1.50	1.10
B.06.1	B.06.1	66.3	Tr200	0.86	465.73	466.40	465.99	466.42	0.001801	0.59	1.45	2.25	0.24
B.06.1	B.06.1	66.3	Tr050	0.58	465.73	466.40	465.93	466.41	0.000817	0.40	1.45	2.25	0.16
B.06.1	B.06.1	66.3	Tr100	0.72	465.73	466.40	465.96	466.41	0.001260	0.50	1.45	2.25	0.20
B.06.1	B.06.1	66.3	Tr500	1.04	465.73	466.40	466.03	466.42	0.002640	0.72	1.44	2.25	0.29
B.06.1	B.06.1	56.3	Tr200	0.86	465.64	466.40		466.40	0.000485	0.35	2.44	4.17	0.15
B.06.1	B.06.1	56.3	Tr050	0.58	465.64	466.40		466.40	0.000219	0.24	2.45	4.18	0.10
B.06.1	B.06.1	56.3	Tr100	0.72	465.64	466.40		466.40	0.000339	0.29	2.45	4.17	0.12
B.06.1	B.06.1	56.3	Tr500	1.04	465.64	466.40		466.41	0.000711	0.43	2.44	4.17	0.18
B.06.1	B.06.1	46.3	Tr200	0.86	465.27	466.40	465.71	466.40	0.000144	0.13	6.77	23.58	0.08
B.06.1	B.06.1	46.3	Tr050	0.58	465.27	466.40	465.63	466.40	0.000065	0.09	6.77	23.58	0.05
B.06.1	B.06.1	46.3	Tr100	0.72	465.27	466.40	465.68	466.40	0.000101	0.11	6.77	23.58	0.06
B.06.1	B.06.1	46.3	Tr500	1.04	465.27	466.40	465.76	466.40	0.000211	0.15	6.77	23.58	0.09





River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
B.06	B.06	884.58	Tr200	56.01	463.97	465.57	465.45	465.80	0.010641	2.09	26.76	36.42	0.78
B.06	B.06	884.58	Tr050	37.34	463.97	465.27	465.20	465.53	0.015641	2.27	16.48	26.57	0.92
B.06	B.06	884.58	Tr100	46.31	463.97	465.43	465.36	465.66	0.013750	2.14	21.67	34.65	0.86
B.06	B.06	884.58	Tr500	69.58	463.97	465.75		465.97	0.008481	2.08	33.43	38.66	0.71
B.06	B.06	874.58	Tr200	56.01	463.86	465.59		465.71	0.003649	1.50	37.44	37.71	0.48
B.06	B.06	874.58	Tr050	37.34	463.86	465.32		465.41	0.004089	1.36	27.42	34.69	0.49
B.06	B.06	874.58	Tr100	46.31	463.86	465.45		465.56	0.003844	1.43	32.34	36.22	0.48
B.06	B.06	874.58	Tr500	69.58	463.86	465.77		465.89	0.003484	1.58	44.10	39.58	0.48
B.06	B.06	864.58	Tr200	56.01	463.68	465.56		465.67	0.003910	1.49	37.55	39.67	0.49
B.06	B.06	864.58	Tr050	37.34	463.68	465.26		465.37	0.004790	1.40	26.59	35.81	0.52
B.06	B.06	864.58	Tr100	46.31	463.68	465.41		465.52	0.004273	1.45	31.98	37.76	0.50
B.06	B.06	864.58	Tr500	69.58	463.68	465.73		465.86	0.003625	1.55	44.77	42.02	0.48
B.06	B.06	854.58	Tr200	56.01	463.59	465.55		465.63	0.002049	1.26	44.56	37.52	0.37
B.06	B.06	854.58	Tr050	37.34	463.59	465.26		465.32	0.001881	1.09	34.36	33.80	0.34
B.06	B.06	854.58	Tr100	46.31	463.59	465.41		465.48	0.001978	1.18	39.37	35.67	0.36
B.06	B.06	854.58	Tr500	69.58	463.59	465.73		465.82	0.002139	1.36	51.31	39.79	0.38
B.06	B.06	844.58	Tr200	56.01	463.43	465.29		465.57	0.011577	2.35	23.87	28.35	0.82
B.06	B.06	844.58	Tr050	37.34	463.43	464.98	464.93	465.26	0.015388	2.33	16.00	23.67	0.91
B.06	B.06	844.58	Tr100	46.31	463.43	465.14		465.42	0.012793	2.33	19.85	25.60	0.85
B.06	B.06	844.58	Tr500	69.58	463.43	465.48		465.76	0.010394	2.36	29.47	32.04	0.79
B.06	B.06	834.58	Tr200	56.01	463.30	465.24		465.46	0.007206	2.06	27.20	27.68	0.66
B.06	B.06	834.58	Tr050	37.34	463.30	464.96		465.14	0.006530	1.86	20.10	22.13	0.62
B.06	B.06	834.58	Tr100	46.31	463.30	465.10		465.30	0.007014	1.97	23.46	24.91	0.65
B.06	B.06	834.58	Tr500	69.58	463.30	465.42		465.66	0.007191	2.14	32.50	31.19	0.67
B.06	B.06	824.58	Tr200	56.01	463.23	465.01	464.87	465.36	0.012317	2.59	21.64	23.27	0.86
B.06	B.06	824.58	Tr050	37.34	463.23	464.83		465.06	0.008427	2.11	17.68	19.36	0.71
B.06	B.06	824.58	Tr100	46.31	463.23	464.92		465.21	0.010429	2.36	19.62	21.36	0.79
B.06	B.06	824.58	Tr500	69.58	463.23	465.12	465.06	465.54	0.014719	2.87	24.22	25.50	0.94
B.06	B.06	814.58	Tr200	56.01	463.14	465.03		465.22	0.006731	1.94	28.83	30.59	0.64
B.06	B.06	814.58	Tr050	37.34	463.14	464.82		464.96	0.005556	1.63	22.93	27.45	0.57
B.06	B.06	814.58	Tr100	46.31	463.14	464.93		465.09	0.006179	1.79	25.85	29.05	0.61
B.06	B.06	814.58	Tr500	69.58	463.14	465.15		465.38	0.007380	2.13	32.72	32.50	0.68
B.06	B.06	804.58	Tr200	56.01	463.13	464.94		465.14	0.008405	2.01	27.84	33.36	0.70
B.06	B.06	804.58	Tr050	37.34	463.13	464.74		464.89	0.007665	1.73	21.58	30.24	0.65
B.06	B.06	804.58	Tr100	46.31	463.13	464.84		465.02	0.008094	1.88	24.65	31.81	0.68
B.06	B.06	804.58	Tr500	69.58	463.13	465.06		465.30	0.008698	2.17	32.11	35.33	0.73
B.06	B.06	794.58	Tr200	56.01	463.11	464.92		465.06	0.004833	1.64	34.22	36.97	0.54
B.06	B.06	794.58	Tr050	37.34	463.11	464.72		464.82	0.004381	1.38	26.98	34.86	0.50
B.06	B.06	794.58	Tr100	46.31	463.11	464.82		464.94	0.004631	1.52	30.56	35.92	0.52
B.06	B.06	794.58	Tr500	69.58	463.11	465.05		465.21	0.005061	1.78	38.99	38.29	0.56
B.06	B.06	784.58	Tr200	56.01	462.94	464.83		465.00	0.007384	1.82	30.78	38.37	0.65
B.06	B.06	784.58	Tr050	37.34	462.94	464.63		464.76	0.007610	1.60	23.35	36.12	0.64
B.06	B.06	784.58	Tr100	46.31	462.94	464.73		464.88	0.007510	1.72	27.00	37.24	0.64
B.06	B.06	784.58	Tr500	69.58	462.94	464.96		465.15	0.007251	1.95	35.77	39.80	0.66
B.06	B.06	774.58	Tr200	56.01	462.94	464.83		464.93	0.003109	1.37	40.80	41.25	0.44
B.06	B.06	774.58	Tr050	37.34	462.94	464.63		464.70	0.002605	1.14	32.77	38.38	0.39
B.06	B.06	774.58	Tr100	46.31	462.94	464.73		464.81	0.002902	1.26	36.69	39.97	0.42
B.06	B.06	774.58	Tr500	69.58	462.94	464.96		465.08	0.003352	1.50	46.25	43.10	0.46
B.06	B.06	764.58	Tr200	56.01	462.94	464.74		464.88	0.007137	1.67	33.46	46.73	0.63
B.06	B.06	764.58	Tr050	37.34	462.94	464.52		464.65	0.009346	1.58	23.63	44.06	0.69
B.06	B.06	764.58	Tr100	46.31	462.94	464.63		464.76	0.008098	1.63	28.41	45.38	0.66
B.06	B.06	764.58	Tr500	69.58	462.94	464.88		465.03	0.006348	1.74	40.05	48.43	0.61
B.06	B.06	754.58	Tr200	56.01	462.51	464.72		464.81	0.004099	1.36	41.31	52.19	0.49
B.06	B.06	754.58	Tr050	37.34	462.51	464.49		464.57	0.004709	1.25	29.96	47.64	0.50
B.06	B.06	754.58	Tr100	46.31	462.51	464.60		464.69	0.004359	1.31	35.46	49.61	0.49
B.06	B.06	754.58	Tr500	69.58	462.51	464.86		464.97	0.003765	1.42	49.02	54.27	0.48
B.06	B.06	744.58	Tr200	56.01	462.31	464.59		464.75	0.007976	1.79	31.33	43.02	0.67
B.06	B.06	744.58	Tr050	37.34	462.31	464.34		464.49	0.010636	1.75	21.32	37.37	0.74
B.06	B.06	744.58	Tr100	46.31	462.31	464.46		464.62	0.009096	1.77	26.17	40.20	0.70
B.06	B.06	744.58	Tr500	69.58	462.31	464.74		464.91	0.007048	1.82	38.19	46.47	0.64
B.06	B.06	734.58	Tr200	56.01	462.18	464.57		464.68	0.004229	1.47	38.21	43.77	0.50
B.06	B.06	734.58	Tr050	37.34	462.18	464.32		464.41	0.004582	1.34	27.85	38.65	0.50
B.06	B.06	734.58	Tr100	46.31	462.18	464.44		464.54	0.004394	1.41	32.90	41.17	0.50
B.06	B.06	734.58	Tr500	69.58	462.18	464.72		464.84	0.004074	1.54	45.17	46.73	0.50















River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
B.05	B.05	141.38	Tr200	1.48	459.67	459.86	459.89	459.96	0.072174	1.41	1.05	10.85	1.45
B.05	B.05	141.38	Tr050	0.96	459.67	459.83	459.86	459.91	0.069482	1.23	0.78	9.67	1.38
B.05	B.05	141.38	Tr100	1.21	459.67	459.85	459.87	459.94	0.070933	1.32	0.92	10.46	1.42
B.05	B.05	141.38	Tr500	1.84	459.67	459.87	459.91	459.99	0.073407	1.53	1.20	11.22	1.49
B.05	B.05	131.38	Tr200	1.48	458.90	459.20	459.23	459.33	0.054959	1.63	0.91	6.14	1.36
B.05	B.05	131.38	Tr050	0.96	458.90	459.15	459.18	459.27	0.059583	1.51	0.64	5.14	1.37
B.05	B.05	131.38	Tr100	1.21	458.90	459.17	459.21	459.30	0.056886	1.57	0.77	5.66	1.36
B.05	B.05	131.38	Tr500	1.84	458.90	459.22	459.26	459.37	0.053203	1.70	1.08	6.70	1.35
B.05	B.05	121.38	Tr200	1.48	458.00	458.10	458.18	458.37	0.201389	2.29	0.65	6.96	2.41
B.05	B.05	121.38	Tr050	0.96	458.00	458.08	458.14	458.27	0.193430	1.94	0.50	6.68	2.27
B.05	B.05	121.38	Tr100	1.21	458.00	458.09	458.16	458.32	0.199345	2.13	0.57	6.82	2.35
B.05	B.05	121.38	Tr500	1.84	458.00	458.12	458.20	458.43	0.200206	2.47	0.74	7.14	2.45
B.05	B.05	111.38	Tr200	1.48	457.20	457.47	457.48	457.56	0.039626	1.31	1.13	8.39	1.14
B.05	B.05	111.38	Tr050	0.96	457.20	457.43	457.44	457.50	0.038539	1.16	0.83	7.19	1.09
B.05	B.05	111.38	Tr100	1.21	457.20	457.45	457.46	457.53	0.038903	1.23	0.98	7.82	1.11
B.05	B.05	111.38	Tr500	1.84	457.20	457.49	457.51	457.59	0.040855	1.40	1.32	9.05	1.17
B.05	B.05	101.38	Tr200	1.48	456.00	456.11	456.22	456.61	0.371861	3.15	0.47	4.97	3.28
B.05	B.05	101.38	Tr050	0.96	456.00	456.08	456.17	456.52	0.490149	2.95	0.33	4.68	3.58
B.05	B.05	101.38	Tr100	1.21	456.00	456.09	456.19	456.57	0.425043	3.07	0.39	4.82	3.42
B.05	B.05	101.38	Tr500	1.84	456.00	456.13	456.25	456.66	0.319333	3.23	0.57	5.17	3.11
B.05	B.05	91.38	Tr200	1.48	456.00	456.11	456.11	456.17	0.032898	1.02	1.45	13.48	1.00
B.05	B.05	91.38	Tr050	0.96	456.00	456.08	456.08	456.13	0.036147	0.89	1.07	13.17	1.00
B.05	B.05	91.38	Tr100	1.21	456.00	456.10	456.10	456.15	0.034729	0.96	1.26	13.32	1.00
B.05	B.05	91.38	Tr500	1.84	456.00	456.13	456.13	456.19	0.031487	1.09	1.68	13.68	1.00
B.05	B.05	81.38	Tr200	1.48	454.67	454.79	454.90	455.30	0.462857	3.17	0.47	5.80	3.56
B.05	B.05	81.38	Tr050	0.96	454.67	454.77	454.85	455.18	0.536008	2.84	0.34	5.52	3.66
B.05	B.05	81.38	Tr100	1.21	454.67	454.78	454.87	455.24	0.490884	3.00	0.40	5.66	3.59
B.05	B.05	81.38	Tr500	1.84	454.67	454.80	454.92	455.36	0.421077	3.32	0.55	5.99	3.48
B.05	B.05	71.38	Tr200	1.48	454.00	454.12	454.13	454.19	0.041293	1.18	1.26	11.26	1.12
B.05	B.05	71.38	Tr050	0.96	454.00	454.10	454.10	454.14	0.036901	0.97	0.99	10.99	1.03
B.05	B.05	71.38	Tr100	1.21	454.00	454.11	454.11	454.17	0.039105	1.07	1.13	11.13	1.08
B.05	B.05	71.38	Tr500	1.84	454.00	454.13	454.15	454.22	0.043917	1.30	1.42	11.42	1.18
B.05	B.05	61.38	Tr200	1.48	452.87	453.08	453.16	453.38	0.207755	2.43	0.61	6.18	2.47
B.05	B.05	61.38	Tr050	0.96	452.87	453.04	453.12	453.33	0.273313	2.38	0.40	5.16	2.72
B.05	B.05	61.38	Tr100	1.21	452.87	453.06	453.14	453.35	0.235259	2.41	0.50	5.68	2.58
B.05	B.05	61.38	Tr500	1.84	452.87	453.10	453.18	453.40	0.181947	2.46	0.75	6.77	2.36
B.05	B.05	51.38	Tr200	1.48	452.00	452.24	452.15	452.27	0.006535	0.71	2.08	9.88	0.50
B.05	B.05	51.38	Tr050	0.96	452.00	452.20	452.12	452.22	0.005308	0.57	1.67	9.44	0.43
B.05	B.05	51.38	Tr100	1.21	452.00	452.22	452.14	452.24	0.005843	0.64	1.89	9.67	0.46
B.05	B.05	51.38	Tr500	1.84	452.00	452.27	452.18	452.30	0.007050	0.79	2.34	10.16	0.52
B.05	B.05	41.38	Tr200	1.48	451.92	452.09	452.09	452.14	0.033731	1.00	1.49	14.68	1.00
B.05	B.05	41.38	Tr050	0.96	451.92	452.07	452.07	452.10	0.037005	0.87	1.11	14.48	1.00
B.05	B.05	41.38	Tr100	1.21	451.92	452.08	452.08	452.12	0.036928	0.95	1.28	14.57	1.02
B.05	B.05	41.38	Tr500	1.84	451.92	452.11	452.11	452.17	0.033128	1.08	1.71	14.80	1.01
B.05	B.05	31.38	Tr200	1.48	450.72	450.85	450.93	451.25	0.517083	2.81	0.53	8.52	3.61
B.05	B.05	31.38	Tr050	0.96	450.72	450.83	450.89	451.15	0.512149	2.53	0.38	7.14	3.50
B.05	B.05	31.38	Tr100	1.21	450.72	450.84	450.91	451.19	0.482125	2.61	0.46	7.96	3.45
B.05	B.05	31.38	Tr500	1.84	450.72	450.86	450.95	451.28	0.532826	2.87	0.64	10.25	3.67
B.05	B.05	22.67	Tr200	1.48	449.36	449.56	449.60	449.68	0.083227	1.54	0.96	9.77	1.56
B.05	B.05	22.67	Tr050	0.96	449.36	449.53	449.56	449.63	0.081550	1.38	0.70	8.21	1.51
B.05	B.05	22.67	Tr100	1.21	449.36	449.55	449.58	449.66	0.083850	1.47	0.82	8.98	1.55
B.05	B.05	22.67	Tr500	1.84	449.36	449.58	449.62	449.71	0.082201	1.61	1.14	10.69	1.58
B.05	B.05	11.37	Tr200	1.48	448.51	448.66	448.69	448.75	0.080536	1.32	1.12	13.87	1.49
B.05	B.05	11.37	Tr050	0.96	448.51	448.64	448.66	448.71	0.080567	1.15	0.84	12.80	1.44
B.05	B.05	11.37	Tr100	1.21	448.51	448.65	448.67	448.73	0.079360	1.23	0.98	13.36	1.45
B.05	B.05	11.37	Tr500	1.84	448.51	448.67	448.70	448.78	0.082166	1.43	1.29	14.48	1.53
B.05	B.05	1.22	Tr200	1.48	446.95	447.40	447.22	447.40	0.001487	0.31	4.84	27.04	0.23
B.05	B.05	1.22	Tr050	0.96	446.95	447.40	447.18	447.40	0.000626	0.20	4.84	27.04	0.15
B.05	B.05	1.22	Tr100	1.21	446.95	447.40	447.20	447.40	0.000994	0.25	4.84	27.04	0.19
B.05	B.05	1.22	Tr500	1.84	446.95	447.40	447.25	447.41	0.002298	0.38	4.84	27.04	0.29
B.04	B.04	632.02	Tr200	1.35	498.66	498.81	498.84	498.90	0.087954	1.30	1.04	14.13	1.53
B.04	B.04	632.02	Tr050	0.89	498.66	498.79	498.82	498.86	0.087956	1.17	0.76	12.20	1.49
B.04	B.04	632.02	Tr100	1.12	498.66	498.80	498.83	498.88	0.088010	1.24	0.91	13.34	1.51
B.04	B.04	632.02	Tr500	1.67	498.66	498.82	498.85	498.92	0.088030	1.41	1.19	14.39	1.56



























River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
B.02.1	B.02.1	329.95	Tr200	1.15	489.17	489.30	489.30	489.34	0.046809	0.93	1.23	17.19	1.11
B.02.1	B.02.1	329.95	Tr050	0.80	489.17	489.28	489.28	489.32	0.046037	0.82	0.97	16.21	1.07
B.02.1	B.02.1	329.95	Tr100	0.97	489.17	489.29	489.29	489.33	0.046446	0.87	1.11	16.95	1.09
B.02.1	B.02.1	329.95	Tr500	1.37	489.17	489.31	489.31	489.36	0.048440	1.01	1.36	17.43	1.15
B.02.1	B.02.1	319.95	Tr200	1.15	488.02	488.17	488.24	488.44	0.219802	2.32	0.50	5.60	2.49
B.02.1	B.02.1	319.95	Tr050	0.80	488.02	488.14	488.21	488.39	0.255326	2.19	0.36	5.02	2.60
B.02.1	B.02.1	319.95	Tr100	0.97	488.02	488.16	488.23	488.42	0.235801	2.26	0.43	5.32	2.54
B.02.1	B.02.1	319.95	Tr500	1.37	488.02	488.18	488.26	488.47	0.198352	2.36	0.58	5.95	2.41
B.02.1	B.02.1	309.95	Tr200	1.15	487.80	487.96	487.96	488.00	0.038821	0.83	1.38	19.72	1.01
B.02.1	B.02.1	309.95	Tr050	0.80	487.80	487.94	487.94	487.97	0.039507	0.77	1.04	16.94	1.00
B.02.1	B.02.1	309.95	Tr100	0.97	487.80	487.95	487.95	487.99	0.037735	0.80	1.22	18.37	0.99
B.02.1	B.02.1	309.95	Tr500	1.37	487.80	487.97	487.97	488.01	0.035166	0.84	1.63	21.68	0.97
B.02.1	B.02.1	289.95	Tr200	1.15	486.18	486.26	486.30	486.40	0.241257	1.67	0.69	13.79	2.38
B.02.1	B.02.1	289.95	Tr050	0.80	486.18	486.28	486.28	486.32	0.038168	0.82	0.98	15.19	1.00
B.02.1	B.02.1	289.95	Tr100	0.97	486.18	486.29	486.29	486.33	0.033828	0.85	1.16	15.96	0.96
B.02.1	B.02.1	289.95	Tr500	1.37	486.18	486.27	486.31	486.45	0.290366	1.88	0.73	13.99	2.63
B.02.1	B.02.1	279.95	Tr200	1.15	483.90	484.03	484.07	484.14	0.210820	1.46	0.79	17.29	2.19
B.02.1	B.02.1	279.95	Tr050	0.80	483.90	483.97	484.04	485.00	2.755587	4.48	0.18	5.02	7.60
B.02.1	B.02.1	279.95	Tr100	0.97	483.90	483.97	484.05	485.12	2.813775	4.74	0.20	5.37	7.76
B.02.1	B.02.1	279.95	Tr500	1.37	483.90	484.04	484.07	484.15	0.182897	1.48	0.93	18.35	2.08
B.02.1	B.02.1	269.95	Tr200	1.15	482.92	483.10	483.12	483.18	0.053748	1.27	0.91	8.86	1.27
B.02.1	B.02.1	269.95	Tr050	0.80	482.92	483.08	483.09	483.14	0.050471	1.13	0.71	7.86	1.20
B.02.1	B.02.1	269.95	Tr100	0.97	482.92	483.09	483.11	483.16	0.052973	1.21	0.80	8.36	1.24
B.02.1	B.02.1	269.95	Tr500	1.37	482.92	483.11	483.12	483.21	0.057112	1.37	1.00	9.08	1.32
B.02.1	B.02.1	259.95	Tr200	1.15	481.94	482.12	482.18	482.32	0.153223	1.98	0.58	6.39	2.09
B.02.1	B.02.1	259.95	Tr050	0.80	481.94	482.10	482.15	482.28	0.173702	1.88	0.42	5.51	2.17
B.02.1	B.02.1	259.95	Tr100	0.97	481.94	482.11	482.17	482.30	0.159835	1.92	0.51	6.01	2.11
B.02.1	B.02.1	259.95	Tr500	1.37	481.94	482.14	482.20	482.34	0.139268	2.02	0.68	6.85	2.03
B.02.1	B.02.1	249.95	Tr200	1.15	480.95	481.14	481.20	481.34	0.068370	1.99	0.58	3.30	1.52
B.02.1	B.02.1	249.95	Tr050	0.80	480.95	481.10	481.15	481.25	0.066208	1.73	0.46	3.22	1.45
B.02.1	B.02.1	249.95	Tr100	0.97	480.95	481.12	481.17	481.30	0.068019	1.87	0.52	3.26	1.50
B.02.1	B.02.1	249.95	Tr500	1.37	480.95	481.16	481.23	481.39	0.069135	2.13	0.64	3.35	1.55
B.02.1	B.02.1	239.95	Tr200	1.15	480.06	480.18	480.24	480.38	0.144208	1.98	0.58	6.09	2.05
B.02.1	B.02.1	239.95	Tr050	0.80	480.06	480.16	480.21	480.31	0.143414	1.73	0.46	5.87	1.98
B.02.1	B.02.1	239.95	Tr100	0.97	480.06	480.17	480.22	480.35	0.141535	1.85	0.52	5.99	2.00
B.02.1	B.02.1	239.95	Tr500	1.37	480.06	480.19	480.26	480.42	0.144935	2.11	0.65	6.21	2.08
B.02.1	B.02.1	229.95	Tr200	1.15	479.44	479.58	479.59	479.65	0.040587	1.11	1.04	10.00	1.10
B.02.1	B.02.1	229.95	Tr050	0.80	479.44	479.56	479.56	479.61	0.039053	0.97	0.83	9.58	1.05
B.02.1	B.02.1	229.95	Tr100	0.97	479.44	479.57	479.58	479.63	0.040076	1.04	0.93	9.79	1.08
B.02.1	B.02.1	229.95	Tr500	1.37	479.44	479.59	479.60	479.67	0.041509	1.19	1.15	10.23	1.13
B.02.1	B.02.1	219.95	Tr200	1.15	477.98	478.09	478.19	478.59	0.557138	3.15	0.37	5.27	3.82
B.02.1	B.02.1	219.95	Tr050	0.80	477.98	478.07	478.15	478.55	0.690194	3.06	0.26	4.60	4.11
B.02.1	B.02.1	219.95	Tr100	0.97	477.98	478.08	478.17	478.57	0.610430	3.10	0.31	4.94	3.93
B.02.1	B.02.1	219.95	Tr500	1.37	477.98	478.10	478.21	478.62	0.502858	3.19	0.43	5.64	3.68
B.02.1	B.02.1	209.95	Tr200	1.15	477.06	477.29	477.31	477.38	0.044936	1.27	0.91	7.77	1.18
B.02.1	B.02.1	209.95	Tr050	0.80	477.06	477.27	477.27	477.33	0.042443	1.13	0.71	6.85	1.13
B.02.1	B.02.1	209.95	Tr100	0.97	477.06	477.28	477.29	477.35	0.043743	1.20	0.81	7.32	1.15
B.02.1	B.02.1	209.95	Tr500	1.37	477.06	477.31	477.33	477.40	0.046351	1.33	1.03	8.36	1.21
B.02.1	B.02.1	199.95	Tr200	1.15	475.98	476.06	476.13	476.34	0.404060	2.36	0.49	8.50	3.15
B.02.1	B.02.1	199.95	Tr050	0.80	475.98	476.05	476.10	476.29	0.502686	2.21	0.36	8.22	3.36
B.02.1	B.02.1	199.95	Tr100	0.97	475.98	476.05	476.11	476.32	0.446299	2.29	0.42	8.36	3.24
B.02.1	B.02.1	199.95	Tr500	1.37	475.98	476.07	476.14	476.37	0.363463	2.43	0.56	8.67	3.05
B.02.1	B.02.1	189.95	Tr200	1.15	474.00	474.14	474.20	474.34	0.116990	1.96	0.59	5.32	1.89
B.02.1	B.02.1	189.95	Tr050	0.80	474.00	474.12	474.16	474.26	0.106360	1.70	0.47	4.95	1.76
B.02.1	B.02.1	189.95	Tr100	0.97	474.00	474.13	474.18	474.30	0.111848	1.83	0.53	5.14	1.82
B.02.1	B.02.1	189.95	Tr500	1.37	474.00	474.15	474.22	474.38	0.123309	2.11	0.65	5.51	1.96
B.02.1	B.02.1	179.95	Tr200	1.15	473.62	473.73	473.73	473.77	0.037609	0.84	1.38	19.26	1.00
B.02.1	B.02.1	179.95	Tr050	0.80	473.62	473.72	473.72	473.75	0.040028	0.76	1.06	17.92	1.00
B.02.1	B.02.1	179.95	Tr100	0.97	473.62	473.73	473.73	473.76	0.038551	0.80	1.22	18.60	0.99
B.02.1	B.02.1	179.95	Tr500	1.37	473.62	473.74	473.74	473.78	0.036820	0.88	1.56	20.00	1.00
B.02.1	B.02.1	169.95	Tr200	1.15	470.12	470.18	470.31	472.28	5.425564	6.42	0.18	4.89	10.71
B.02.1	B.02.1	169.95	Tr050	0.80	470.12	470.17	470.28	472.16	7.217951	6.25	0.13	4.50	11.85
B.02.1	B.02.1	169.95	Tr100	0.97	470.12	470.17	470.30	472.23	6.317924	6.35	0.15	4.75	11.31
B.02.1	B.02.1	169.95	Tr500	1.37	470.12	470.18	470.33	472.33	4.650317	6.49	0.21	5.05	10.14















River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
B.01	B.01	69.74	Tr200	17.06	453.21	454.17		454.20	0.001612	0.77	22.16	32.70	0.30
B.01	B.01	69.74	Tr050	12.16	453.21	454.06		454.08	0.001462	0.66	18.53	32.36	0.28
B.01	B.01	69.74	Tr100	14.56	453.21	454.11		454.14	0.001547	0.72	20.35	32.53	0.29
B.01	B.01	69.74	Tr500	20.44	453.21	454.25		454.28	0.001615	0.83	24.71	32.93	0.30
B.01	B.01	56.6	Tr200	17.06	453.19	454.15		454.18	0.001701	0.75	22.65	35.78	0.30
B.01	B.01	56.6	Tr050	12.16	453.19	454.04		454.06	0.001615	0.65	18.70	35.52	0.29
B.01	B.01	56.6	Tr100	14.56	453.19	454.09		454.12	0.001668	0.70	20.68	35.65	0.30
B.01	B.01	56.6	Tr500	20.44	453.19	454.23		454.26	0.001656	0.80	25.46	35.97	0.30
B.01	B.01	46.6	Tr200	17.06	453.19	454.09		454.15	0.005446	1.06	16.09	36.50	0.51
B.01	B.01	46.6	Tr050	12.16	453.19	453.97		454.03	0.007498	1.03	11.85	35.97	0.57
B.01	B.01	46.6	Tr100	14.56	453.19	454.03		454.09	0.006282	1.04	13.97	36.26	0.54
B.01	B.01	46.6	Tr500	20.44	453.19	454.17		454.23	0.004356	1.07	19.20	36.86	0.47
B.01	B.01	26.6	Tr200	17.06	452.93	453.95		454.03	0.005918	1.22	13.97	27.10	0.54
B.01	B.01	26.6	Tr050	12.16	452.93	453.81		453.88	0.006650	1.17	10.39	23.44	0.56
B.01	B.01	26.6	Tr100	14.56	452.93	453.89		453.96	0.006236	1.20	12.17	25.33	0.55
B.01	B.01	26.6	Tr500	20.44	452.93	454.05		454.12	0.007000	1.19	17.13	39.43	0.58
B.01	B.01	6.6	Tr200	17.06	452.70	453.89	453.52	453.94	0.003193	1.00	17.04	28.06	0.41
B.01	B.01	6.6	Tr050	12.16	452.70	453.74	453.41	453.79	0.003194	0.92	13.22	24.73	0.40
B.01	B.01	6.6	Tr100	14.56	452.70	453.82	453.47	453.86	0.003190	0.96	15.14	26.45	0.41
B.01	B.01	6.6	Tr500	20.44	452.70	453.97	453.58	454.02	0.003195	1.05	19.40	29.94	0.42

River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
B.07	B.07	350.92	Tr200	0.64	490.56	490.81	490.81	490.90	0.027909	1.39	0.46	2.24	0.98
B.07	B.07	350.92	Tr050	0.43	490.56	490.75	490.75	490.83	0.031516	1.28	0.34	2.07	1.01
B.07	B.07	350.92	Tr100	0.54	490.56	490.78	490.78	490.87	0.028030	1.32	0.41	2.17	0.97
B.07	B.07	350.92	Tr500	0.76	490.56	490.83	490.83	490.94	0.028722	1.48	0.51	2.31	1.01
B.07	B.07	340.92	Tr200	0.64	488.92	489.01	489.17	490.01	0.923136	4.43	0.14	1.77	4.95
B.07	B.07	340.92	Tr050	0.43	488.92	488.99	489.11	489.83	1.111890	4.07	0.11	1.70	5.22
B.07	B.07	340.92	Tr100	0.54	488.92	489.00	489.14	489.96	1.043990	4.34	0.12	1.73	5.17
B.07	B.07	340.92	Tr500	0.76	488.92	489.02	489.19	490.04	0.778795	4.47	0.17	1.81	4.65
B.07	B.07	329.73	Tr200	0.64	487.08	487.26	487.32	487.47	0.087745	2.05	0.31	2.02	1.67
B.07	B.07	329.73	Tr050	0.43	487.08	487.22	487.27	487.38	0.080708	1.75	0.25	1.92	1.56
B.07	B.07	329.73	Tr100	0.54	487.08	487.24	487.30	487.43	0.084379	1.92	0.28	1.98	1.62
B.07	B.07	329.73	Tr500	0.76	487.08	487.46	487.35	487.51	0.008396	0.97	0.79	2.63	0.57
B.07	B.07	329		Culvert									
B.07	B.07	304.12	Tr200	0.64	486.54	486.81		486.89	0.018430	1.28	0.51	2.30	0.83
B.07	B.07	304.12	Tr050	0.43	486.54	486.76		486.82	0.018554	1.10	0.39	2.15	0.80
B.07	B.07	304.12	Tr100	0.54	486.54	486.78		486.86	0.018499	1.20	0.46	2.23	0.81
B.07	B.07	304.12	Tr500	0.76	486.54	486.72	486.81	487.00	0.110495	2.35	0.32	2.05	1.89
B.07	B.07	300.92	Tr200	0.64	486.48	486.75	486.72	486.83	0.018660	1.27	0.51	2.30	0.83
B.07	B.07	300.92	Tr050	0.43	486.48	486.70	486.67	486.76	0.017449	1.06	0.41	2.16	0.77
B.07	B.07	300.92	Tr100	0.54	486.48	486.73	486.70	486.80	0.017646	1.17	0.47	2.25	0.79
B.07	B.07	300.92	Tr500	0.76	486.48	486.69	486.75	486.90	0.070092	2.02	0.38	2.12	1.53
B.07	B.07	290.92	Tr200	0.64	486.29	486.56		486.64	0.021148	1.27	0.51	2.30	0.86
B.07	B.07	290.92	Tr050	0.43	486.29	486.51		486.57	0.019276	1.08	0.40	2.16	0.80
B.07	B.07	290.92	Tr100	0.54	486.29	486.53		486.61	0.020339	1.18	0.46	2.24	0.84
B.07	B.07	290.92	Tr500	0.76	486.29	486.59	486.56	486.68	0.020076	1.31	0.58	2.40	0.85
B.07	B.07	280.92	Tr200	0.64	486.09	486.36		486.44	0.019259	1.23	0.52	2.31	0.83
B.07	B.07	280.92	Tr050	0.43	486.09	486.30		486.37	0.020338	1.10	0.39	2.14	0.82
B.07	B.07	280.92	Tr100	0.54	486.09	486.34		486.41	0.019796	1.17	0.46	2.23	0.83
B.07	B.07	280.92	Tr500	0.76	486.09	486.39		486.48	0.018877	1.28	0.59	2.40	0.83
B.07	B.07	276.36	Tr200	0.64	486.00	486.30		486.36	0.013660	1.09	0.59	2.40	0.70
B.07	B.07	276.36	Tr050	0.43	486.00	486.23		486.28	0.015013	0.99	0.43	2.20	0.72
B.07	B.07	276.36	Tr100	0.54	486.00	486.27		486.33	0.014183	1.05	0.52	2.31	0.71
B.07	B.07	276.36	Tr500	0.76	486.00	486.33		486.40	0.013349	1.14	0.67	2.50	0.70
B.07	B.07	270.92	Tr200	0.64	485.90	486.27		486.30	0.006717	0.85	0.75	2.61	0.50
B.07	B.07	270.92	Tr050	0.43	485.90	486.20		486.23	0.006313	0.74	0.58	2.40	0.48
B.07	B.07	270.92	Tr100	0.54	485.90	486.24		486.27	0.006561	0.80	0.67	2.51	0.49
B.07	B.07	270.92	Tr500	0.76	485.90	486.30		486.34	0.006941	0.90	0.84	2.70	0.52
B.07	B.07	260.92	Tr200	0.64	485.81	486.22		486.25	0.004570	0.74	0.86	2.73	0.42
B.07	B.07	260.92	Tr050	0.43	485.81	486.16		486.18	0.003694	0.61	0.70	2.55	0.37
B.07	B.07	260.92	Tr100	0.54	485.81	486.19		486.21	0.004209	0.68	0.79	2.65	0.40
B.07	B.07	260.92	Tr500	0.76	485.81	486.25		486.28	0.004955	0.80	0.95	2.82	0.44
B.07	B.07	250.92	Tr200	0.64	485.80	486.14		486.18	0.009054	0.94	0.68	2.53	0.58
B.07	B.07	250.92	Tr050	0.43	485.80	486.10		486.13	0.005966	0.72	0.60	2.42	0.47
B.07	B.07	250.92	Tr100	0.54	485.80	486.12		486.16	0.007604	0.84	0.64	2.48	0.53
B.07	B.07	250.92	Tr500	0.76	485.80	486.15		486.21	0.011318	1.07	0.71	2.56	0.65
B.07	B.07	240.92	Tr200	0.64	485.79	486.06	486.03	486.07	0.011591	0.47	1.36	18.37	0.55
B.07	B.07	240.92	Tr050	0.43	485.79	486.04		486.05	0.009306	0.38	1.13	17.91	0.48
B.07	B.07	240.92	Tr100	0.54	485.79	486.05	486.03	486.06	0.011275	0.44	1.23	18.11	0.54
B.07	B.07	240.92	Tr500	0.76	485.79	486.07	486.04	486.08	0.011469	0.50	1.52	18.69	0.56
B.07	B.07	230.92	Tr200	0.64	485.73	485.83	485.83	485.86	0.041943	0.72	0.89	17.00	1.00
B.07	B.07	230.92	Tr050	0.43	485.73	485.81	485.81	485.84	0.069441	0.78	0.55	13.55	1.23
B.07	B.07	230.92	Tr100	0.54	485.73	485.83	485.83	485.85	0.043799	0.70	0.77	15.89	1.01
B.07	B.07	230.92	Tr500	0.76	485.73	485.84	485.84	485.87	0.046236	0.78	0.98	17.76	1.06
B.07	B.07	220.93	Tr200	0.64	485.24	485.35	485.36	485.39	0.051671	0.83	0.77	13.97	1.12
B.07	B.07	220.93	Tr050	0.43	485.24	485.33	485.33	485.37	0.056155	0.77	0.56	11.83	1.14
B.07	B.07	220.93	Tr100	0.54	485.24	485.34	485.36	485.38	0.051928	0.79	0.68	13.09	1.11
B.07	B.07	220.93	Tr500	0.76	485.24	485.36	485.37	485.40	0.047775	0.84	0.91	15.12	1.09
B.07	B.07	210.93	Tr200	0.64	484.78	484.85	484.91	485.22	0.840336	2.70	0.24	5.85	4.29
B.07	B.07	210.93	Tr050	0.43	484.78	484.88	484.88	484.92	0.063320	0.91	0.47	8.52	1.24
B.07	B.07	210.93	Tr100	0.54	484.78	484.90	484.91	484.93	0.038264	0.77	0.70	11.13	0.98
B.07	B.07	210.93	Tr500	0.76	484.78	484.92	484.93	484.96	0.040727	0.85	0.89	12.95	1.03
B.07	B.07	200.93	Tr200	0.64	484.31	484.41	484.41	484.45	0.046616	0.81	0.82	17.45	1.07
B.07	B.07	200.93	Tr050	0.43	484.31	484.39	484.40	484.43	0.099255	0.89	0.48	12.64	1.46
B.07	B.07	200.93	Tr100	0.54	484.31	484.40	484.41	484.44	0.065089	0.84	0.65	15.24	1.23
B.07	B.07	200.93	Tr500	0.76	484.31	484.41	484.42	484.46	0.064416	0.95	0.82	17.52	1.26
B.07	B.07	190.93	Tr200	0.64	484.00	484.05	484.05	484.07	0.029726	0.55	1.16	26.40	0.82
B.07	B.07	190.93	Tr050	0.43	484.00	484.04	484.04	484.05	0.050585	0.56	0.76	24.14	1.01
B.07	B.07	190.93	Tr100	0.54	484.00	484.04	484.04	484.06	0.054686	0.62	0.86	24.74	1.07
B.07	B.07	190.93	Tr500	0.76	484.00	484.04	484.04	484.08	0.078024	0.79	0.96	25.30	1.29

River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
B.07	B.07	180.93	Tr200	0.64	483.42	483.49	483.50	483.54	0.118825	0.98	0.66	18.12	1.60
B.07	B.07	180.93	Tr050	0.43	483.42	483.49	483.50	483.51	0.059067	0.68	0.64	18.06	1.12
B.07	B.07	180.93	Tr100	0.54	483.42	483.50	483.50	483.52	0.052934	0.72	0.76	18.46	1.09
B.07	B.07	180.93	Tr500	0.76	483.42	483.51	483.51	483.54	0.040005	0.75	1.04	19.31	1.00
B.07	B.07	170.93	Tr200	0.64	482.52	482.59	482.60	482.63	0.071682	0.90	0.71	14.44	1.29
B.07	B.07	170.93	Tr050	0.43	482.52	482.57	482.59	482.62	0.148860	1.01	0.43	12.70	1.75
B.07	B.07	170.93	Tr100	0.54	482.52	482.58	482.59	482.64	0.174583	1.14	0.47	13.15	1.92
B.07	B.07	170.93	Tr500	0.76	482.52	482.58	482.60	482.69	0.279880	1.49	0.51	13.48	2.45
B.07	B.07	160.93	Tr200	0.64	482.00	482.10	482.05	482.11	0.005922	0.39	1.62	17.48	0.41
B.07	B.07	160.93	Tr050	0.43	482.00	482.08	482.04	482.09	0.005573	0.33	1.29	16.92	0.39
B.07	B.07	160.93	Tr100	0.54	482.00	482.10	482.06	482.10	0.005002	0.35	1.54	17.34	0.38
B.07	B.07	160.93	Tr500	0.76	482.00	482.11	482.06	482.12	0.005697	0.41	1.83	17.82	0.41
B.07	B.07	150.93	Tr200	0.64	481.90	481.99	481.98	482.01	0.019325	0.50	1.27	22.95	0.68
B.07	B.07	150.93	Tr050	0.43	481.90	481.98	481.98	481.99	0.016647	0.42	1.03	21.98	0.62
B.07	B.07	150.93	Tr100	0.54	481.90	481.98	481.98	482.00	0.026254	0.53	1.03	21.98	0.78
B.07	B.07	150.93	Tr500	0.76	481.90	482.00	481.99	482.01	0.023393	0.57	1.33	23.19	0.76
B.07	B.07	140.93	Tr200	0.64	481.64	481.75	481.74	481.77	0.027415	0.65	0.98	15.62	0.83
B.07	B.07	140.93	Tr050	0.43	481.64	481.65	481.71	903.11	32226.790000	90.92	0.00	1.64	540.67
B.07	B.07	140.93	Tr100	0.54	481.64	481.75	481.73	481.76	0.020024	0.56	0.97	15.55	0.71
B.07	B.07	140.93	Tr500	0.76	481.64	481.76		481.78	0.022547	0.64	1.20	17.19	0.77
B.07	B.07	130.93	Tr200	0.64	481.33	481.45	481.44	481.47	0.031384	0.69	0.93	15.10	0.89
B.07	B.07	130.93	Tr050	0.43	481.33	481.43	481.43	481.45	0.030321	0.61	0.70	13.17	0.85
B.07	B.07	130.93	Tr100	0.54	481.33	481.43	481.43	481.46	0.047192	0.77	0.70	13.20	1.06
B.07	B.07	130.93	Tr500	0.76	481.33	481.45	481.45	481.48	0.039219	0.78	0.97	15.44	1.00
B.07	B.07	120.93	Tr200	0.64	480.96	481.08	481.07	481.11	0.042023	0.81	0.79	12.46	1.03
B.07	B.07	120.93	Tr050	0.43	480.96	480.96	481.05	23880.82	3750142.000000	677.46	0.00	0.38	5316.54
B.07	B.07	120.93	Tr100	0.54	480.96	481.08	481.08	481.10	0.028152	0.67	0.80	12.53	0.85
B.07	B.07	120.93	Tr500	0.76	480.96	481.09	481.09	481.12	0.034318	0.80	0.95	13.14	0.95
B.07	B.07	110.93	Tr200	0.64	480.60	480.72	480.72	480.74	0.031779	0.78	0.96	20.68	0.92
B.07	B.07	110.93	Tr050	0.43	480.60	480.70	480.70	480.73	0.032649	0.69	0.70	17.53	0.90
B.07	B.07	110.93	Tr100	0.54	480.60	480.71	480.71	480.74	0.045969	0.84	0.73	17.94	1.08
B.07	B.07	110.93	Tr500	0.76	480.60	480.72	480.72	480.75	0.039307	0.89	1.01	21.23	1.03
B.07	B.07	100.93	Tr200	0.64	480.00	480.04	480.07	480.11	0.183491	1.15	0.56	15.89	1.96
B.07	B.07	100.93	Tr050	0.43	480.00	480.03	480.05	480.08	0.181842	0.99	0.43	15.20	1.88
B.07	B.07	100.93	Tr100	0.54	480.00	480.04	480.05	480.08	0.103310	0.90	0.60	16.12	1.48
B.07	B.07	100.93	Tr500	0.76	480.00	480.05	480.06	480.11	0.122998	1.07	0.71	16.66	1.65
B.07	B.07	90.93	Tr200	0.64	479.62	479.73	479.73	479.77	0.094125	0.82	0.78	22.21	1.40
B.07	B.07	90.93	Tr050	0.43	479.62	479.73	479.73	479.75	0.047787	0.57	0.75	21.96	0.99
B.07	B.07	90.93	Tr100	0.54	479.62	479.74	479.74	479.76	0.040270	0.58	0.93	23.39	0.94
B.07	B.07	90.93	Tr500	0.76	479.62	479.74	479.74	479.77	0.052610	0.71	1.07	24.48	1.09
B.07	B.07	80.93	Tr200	0.64	478.92	479.06	479.06	479.10	0.048890	0.94	0.68	9.97	1.13
B.07	B.07	80.93	Tr050	0.43	478.92	479.03	479.05	479.08	0.094550	1.08	0.40	7.62	1.50
B.07	B.07	80.93	Tr100	0.54	478.92	479.03	479.05	479.11	0.116043	1.23	0.44	7.99	1.68
B.07	B.07	80.93	Tr500	0.76	478.92	479.05	479.07	479.12	0.081438	1.18	0.65	9.73	1.45
B.07	B.07	70.93	Tr200	0.64	478.22	478.34	478.36	478.42	0.099876	1.26	0.51	7.98	1.59
B.07	B.07	70.93	Tr050	0.43	478.22	478.35	478.34	478.38	0.022112	0.67	0.64	8.43	0.77
B.07	B.07	70.93	Tr100	0.54	478.22	478.37	478.36	478.39	0.021442	0.72	0.75	8.76	0.78
B.07	B.07	70.93	Tr500	0.76	478.22	478.39	478.38	478.42	0.018239	0.79	0.98	9.45	0.75
B.07	B.07	60.93	Tr200	0.64	478.00	478.05	478.05	478.06	0.028867	0.54	1.19	26.82	0.81
B.07	B.07	60.93	Tr050	0.43	478.00	478.03	478.03	478.05	0.050664	0.54	0.79	26.46	1.00
B.07	B.07	60.93	Tr100	0.54	478.00	478.03	478.03	478.05	0.061140	0.63	0.86	26.52	1.11
B.07	B.07	60.93	Tr500	0.76	478.00	478.03	478.03	478.07	0.100354	0.84	0.91	26.57	1.44
B.07	B.07	50.93	Tr200	0.64	477.29	477.42	477.46	477.55	0.105491	1.62	0.43	6.72	1.73
B.07	B.07	50.93	Tr050	0.43	477.29	477.42	477.44	477.48	0.060888	1.18	0.39	6.40	1.30
B.07	B.07	50.93	Tr100	0.54	477.29	477.43	477.45	477.50	0.049285	1.19	0.50	7.32	1.21
B.07	B.07	50.93	Tr500	0.76	477.29	477.46	477.47	477.52	0.033774	1.18	0.75	9.07	1.04
B.07	B.07	40.93	Tr200	0.64	476.47	476.61	476.64	476.68	0.069160	1.11	0.58	8.32	1.35
B.07	B.07	40.93	Tr050	0.43	476.47	476.58	476.61	476.66	0.116991	1.23	0.35	6.38	1.68
B.07	B.07	40.93	Tr100	0.54	476.47	476.59	476.63	476.69	0.153067	1.44	0.37	6.63	1.93
B.07	B.07	40.93	Tr500	0.76	476.47	476.59	476.64	476.78	0.263770	1.92	0.40	6.82	2.55
B.07	B.07	30.93	Tr200	0.64	475.98	476.08	476.03	476.08	0.004982	0.33	1.95	24.19	0.37
B.07	B.07	30.93	Tr050	0.43	475.98	476.06	476.03	476.06	0.005107	0.28	1.51	23.71	0.36
B.07	B.07	30.93	Tr100	0.54	475.98	476.07	476.03	476.07	0.005312	0.31	1.72	23.94	0.37
B.07	B.07	30.93	Tr500	0.76	475.98	476.08	476.04	476.09	0.004988	0.35	2.17	24.42	0.38
B.07	B.07	20.93	Tr200	0.64	475.84	475.94	475.94	475.96	0.048513	0.63	1.02	26.34	1.02
B.07	B.07	20.93	Tr050	0.43	475.84	475.93	475.93	475.94	0.056023	0.59	0.73	23.07	1.06
B.07	B.07	20.93	Tr100	0.54	475.84	475.93	475.93	475.95	0.046347	0.59	0.92	25.24	0.99
B.07	B.07	20.93	Tr500	0.76	475.84	475.94	475.94	475.97	0.055287	0.69	1.09	26.98	1.10
B.07	B.07	10.93	Tr200	0.64	475.27	475.42	475.43	475.47	0.049225	0.99	0.64	8.47	1.15
B.07	B.07	10.93	Tr050	0.43	475.27	475.40	475.40	475.44	0.045739	0.87	0.49	7.49	1.08

River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
B.07	B.07	10.93	Tr100	0.54	475.27	475.41	475.42	475.46	0.052390	0.97	0.55	7.91	1.17
B.07	B.07	10.93	Tr500	0.76	475.27	475.44	475.45	475.49	0.041729	0.98	0.78	9.26	1.08
B.07	B.07	0.93	Tr200	0.64	474.38	474.48	474.52	474.61	0.183518	1.60	0.40	6.97	2.12
B.07	B.07	0.93	Tr050	0.43	474.38	474.47	474.49	474.58	0.214725	1.52	0.28	6.00	2.22
B.07	B.07	0.93	Tr100	0.54	474.38	474.48	474.52	474.59	0.168271	1.48	0.37	6.67	2.02
B.07	B.07	0.93	Tr500	0.76	474.38	474.49	474.54	474.65	0.230999	1.82	0.42	7.11	2.39
B.06.1	B.06.1	316.1	Tr200	0.86	487.31	487.53	487.62	487.86	0.183771	2.53	0.34	2.89	2.35
B.06.1	B.06.1	316.1	Tr050	0.58	487.31	487.50	487.57	487.76	0.183955	2.25	0.26	2.63	2.29
B.06.1	B.06.1	316.1	Tr100	0.72	487.31	487.52	487.60	487.81	0.183858	2.38	0.30	2.81	2.32
B.06.1	B.06.1	316.1	Tr500	1.04	487.31	487.55	487.66	487.92	0.183885	2.69	0.39	2.99	2.39
B.06.1	B.06.1	306.1	Tr200	0.86	485.79	485.95	486.04	486.24	0.140819	2.41	0.36	2.66	2.10
B.06.1	B.06.1	306.1	Tr050	0.58	485.79	485.92	485.98	486.14	0.141799	2.09	0.28	2.57	2.03
B.06.1	B.06.1	306.1	Tr100	0.72	485.79	485.93	486.01	486.19	0.141536	2.26	0.32	2.62	2.07
B.06.1	B.06.1	306.1	Tr500	1.04	485.79	485.96	486.07	486.30	0.141447	2.58	0.40	2.71	2.13
B.06.1	B.06.1	296.1	Tr200	0.86	484.59	484.76	484.81	484.91	0.118594	1.72	0.50	5.35	1.80
B.06.1	B.06.1	296.1	Tr050	0.58	484.59	484.73	484.78	484.85	0.112206	1.52	0.38	4.68	1.71
B.06.1	B.06.1	296.1	Tr100	0.72	484.59	484.75	484.79	484.88	0.115209	1.63	0.44	5.04	1.75
B.06.1	B.06.1	296.1	Tr500	1.04	484.59	484.77	484.82	484.94	0.121708	1.83	0.57	5.69	1.84
B.06.1	B.06.1	286.1	Tr200	0.86	482.85	483.00	483.10	483.34	0.210999	2.58	0.33	3.06	2.50
B.06.1	B.06.1	286.1	Tr050	0.58	482.85	482.97	483.05	483.25	0.239231	2.36	0.25	2.85	2.56
B.06.1	B.06.1	286.1	Tr100	0.72	482.85	482.99	483.07	483.30	0.224262	2.48	0.29	2.96	2.53
B.06.1	B.06.1	286.1	Tr500	1.04	482.85	483.02	483.13	483.39	0.199131	2.70	0.39	3.18	2.47
B.06.1	B.06.1	276.1	Tr200	0.86	481.05	481.19	481.28	481.50	0.160082	2.48	0.35	2.73	2.22
B.06.1	B.06.1	276.1	Tr050	0.58	481.05	481.16	481.23	481.39	0.147418	2.09	0.28	2.65	2.07
B.06.1	B.06.1	276.1	Tr100	0.72	481.05	481.18	481.25	481.44	0.153820	2.29	0.31	2.69	2.15
B.06.1	B.06.1	276.1	Tr500	1.04	481.05	481.20	481.31	481.57	0.165664	2.68	0.39	2.77	2.29
B.06.1	B.06.1	266.1	Tr200	0.86	479.22	479.48	479.57	479.80	0.180104	2.51	0.34	2.73	2.26
B.06.1	B.06.1	266.1	Tr050	0.58	479.22	479.45	479.52	479.70	0.193167	2.21	0.26	2.67	2.26
B.06.1	B.06.1	266.1	Tr100	0.72	479.22	479.46	479.54	479.75	0.185538	2.37	0.30	2.70	2.26
B.06.1	B.06.1	266.1	Tr500	1.04	479.22	479.49	479.60	479.86	0.177097	2.68	0.39	2.76	2.28
B.06.1	B.06.1	256.1	Tr200	0.86	478.21	478.42	478.48	478.63	0.077850	2.01	0.43	2.59	1.58
B.06.1	B.06.1	256.1	Tr050	0.58	478.21	478.39	478.43	478.54	0.073932	1.71	0.34	2.53	1.50
B.06.1	B.06.1	256.1	Tr100	0.72	478.21	478.41	478.46	478.58	0.076074	1.87	0.38	2.56	1.54
B.06.1	B.06.1	256.1	Tr500	1.04	478.21	478.44	478.51	478.68	0.079285	2.16	0.48	2.63	1.61
B.06.1	B.06.1	250.08	Tr200	0.86	476.43	476.55	476.72	477.52	0.638862	4.37	0.20	1.85	4.28
B.06.1	B.06.1	250.08	Tr050	0.58	476.43	476.52	476.66	477.40	0.852774	4.17	0.14	1.76	4.74
B.06.1	B.06.1	250.08	Tr100	0.72	476.43	476.53	476.69	477.46	0.720811	4.27	0.17	1.81	4.46
B.06.1	B.06.1	250.08	Tr500	1.04	476.43	476.57	476.76	477.59	0.564135	4.49	0.23	1.91	4.11
B.06.1	B.06.1	240.08	Tr200	0.86	476.02	476.30	476.31	476.43	0.031203	1.59	0.54	2.34	1.05
B.06.1	B.06.1	240.08	Tr050	0.58	476.02	476.23	476.25	476.35	0.036655	1.48	0.39	2.14	1.11
B.06.1	B.06.1	240.08	Tr100	0.72	476.02	476.28	476.28	476.39	0.029949	1.48	0.49	2.27	1.02
B.06.1	B.06.1	240.08	Tr500	1.04	476.02	476.33	476.34	476.48	0.032770	1.71	0.61	2.43	1.09
B.06.1	B.06.1	230.08	Tr200	0.86	475.61	475.86	475.90	476.03	0.050040	1.87	0.46	2.24	1.31
B.06.1	B.06.1	230.08	Tr050	0.58	475.61	475.81	475.84	475.94	0.043873	1.57	0.37	2.11	1.20
B.06.1	B.06.1	230.08	Tr100	0.72	475.61	475.83	475.87	475.99	0.052041	1.79	0.40	2.16	1.32
B.06.1	B.06.1	230.08	Tr500	1.04	475.61	475.89	475.94	476.08	0.047533	1.95	0.53	2.33	1.30
B.06.1	B.06.1	220.08	Tr200	0.86	475.20	475.47	475.49	475.61	0.034701	1.65	0.52	2.32	1.11
B.06.1	B.06.1	220.08	Tr050	0.58	475.20	475.41	475.43	475.53	0.037319	1.49	0.39	2.14	1.12
B.06.1	B.06.1	220.08	Tr100	0.72	475.20	475.45	475.46	475.57	0.033644	1.54	0.47	2.25	1.08
B.06.1	B.06.1	220.08	Tr500	1.04	475.20	475.50	475.53	475.66	0.035871	1.77	0.59	2.40	1.14
B.06.1	B.06.1	210.08	Tr200	0.86	474.79	475.04	475.08	475.21	0.046057	1.81	0.47	2.26	1.26
B.06.1	B.06.1	210.08	Tr050	0.58	474.79	475.00	475.02	475.12	0.043136	1.57	0.37	2.11	1.19
B.06.1	B.06.1	210.08	Tr100	0.72	474.79	475.02	475.05	475.17	0.047542	1.73	0.42	2.18	1.27
B.06.1	B.06.1	210.08	Tr500	1.04	474.79	475.08	475.11	475.26	0.043538	1.89	0.55	2.36	1.25
B.06.1	B.06.1	200.08	Tr200	0.86	474.38	474.65	474.67	474.79	0.036908	1.68	0.51	2.31	1.14
B.06.1	B.06.1	200.08	Tr050	0.58	474.38	474.59	474.61	474.71	0.039102	1.51	0.38	2.13	1.14
B.06.1	B.06.1	200.08	Tr100	0.72	474.38	474.62	474.64	474.75	0.036082	1.58	0.46	2.23	1.12
B.06.1	B.06.1	200.08	Tr500	1.04	474.38	474.67	474.71	474.84	0.039273	1.83	0.57	2.38	1.19
B.06.1	B.06.1	190.08	Tr200	0.86	473.97	474.23	474.26	474.39	0.043063	1.77	0.48	2.27	1.23
B.06.1	B.06.1	190.08	Tr050	0.58	473.97	474.17	474.20	474.30	0.043611	1.57	0.37	2.11	1.20
B.06.1	B.06.1	190.08	Tr100	0.72	473.97	474.20	474.23	474.35	0.043730	1.69	0.43	2.19	1.22
B.06.1	B.06.1	190.08	Tr500	1.04	473.97	474.26	474.30	474.44	0.043116	1.88	0.55	2.36	1.24
B.06.1	B.06.1	180.08	Tr200	0.86	473.56	473.82	473.85	473.97	0.039276	1.72	0.50	2.29	1.17
B.06.1	B.06.1	180.08	Tr050	0.58	473.56	473.77	473.79	473.89	0.037483	1.49	0.39	2.14	1.12
B.06.1	B.06.1	180.08	Tr100	0.72	473.56	473.80	473.82	473.93	0.038787	1.62	0.45	2.22	1.15
B.06.1	B.06.1	180.08	Tr500	1.04	473.56	473.85	473.89	474.02	0.039736	1.84	0.57	2.38	1.20
B.06.1	B.06.1	169.11	Tr200	0.86	473.11	473.53	473.40	473.58	0.007640	0.97	0.89	2.75	0.54
B.06.1	B.06.1	169.11	Tr050	0.58	473.11	473.42	473.34	473.47	0.009855	0.94	0.61	2.43	0.60
B.06.1	B.06.1	169.11	Tr100	0.72	473.11	473.48	473.37	473.52	0.008583	0.96	0.75	2.60	0.57
B.06.1	B.06.1	169.11	Tr500	1.04	473.11	473.59	473.43	473.64	0.006631	0.98	1.06	2.94	0.52

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
B.06.1	B.06.1	169		Culvert									
B.06.1	B.06.1	131.61	Tr200	0.86	471.57	471.73	471.86	472.22	0.227671	3.11	0.28	1.98	2.66
B.06.1	B.06.1	131.61	Tr050	0.58	471.57	471.69	471.80	472.09	0.242474	2.78	0.21	1.87	2.66
B.06.1	B.06.1	131.61	Tr100	0.72	471.57	471.71	471.83	472.16	0.238006	2.97	0.24	1.92	2.68
B.06.1	B.06.1	131.61	Tr500	1.04	471.57	471.75	471.90	472.29	0.212697	3.26	0.32	2.04	2.62
B.06.1	B.06.1	120.08	Tr200	0.86	471.10	471.33	471.33	471.41	0.027755	1.24	0.70	4.18	0.97
B.06.1	B.06.1	120.08	Tr050	0.58	471.10	471.28	471.28	471.35	0.034063	1.14	0.51	4.01	1.03
B.06.1	B.06.1	120.08	Tr100	0.72	471.10	471.30	471.30	471.38	0.032459	1.22	0.59	4.09	1.02
B.06.1	B.06.1	120.08	Tr500	1.04	471.10	471.32	471.34	471.44	0.042756	1.52	0.68	4.17	1.20
B.06.1	B.06.1	110.08	Tr200	0.86	470.13	470.31	470.44	470.79	0.188897	3.06	0.28	1.73	2.42
B.06.1	B.06.1	110.08	Tr050	0.58	470.13	470.27	470.37	470.64	0.193483	2.69	0.22	1.66	2.39
B.06.1	B.06.1	110.08	Tr100	0.72	470.13	470.30	470.41	470.71	0.180546	2.84	0.25	1.70	2.35
B.06.1	B.06.1	110.08	Tr500	1.04	470.13	470.36	470.48	470.76	0.115884	2.80	0.37	1.84	1.96
B.06.1	B.06.1	104.36	Tr200	0.86	469.62	469.79	469.85	470.01	0.086512	2.04	0.42	2.79	1.67
B.06.1	B.06.1	104.36	Tr050	0.58	469.62	469.76	469.81	469.91	0.077099	1.71	0.34	2.68	1.54
B.06.1	B.06.1	104.36	Tr100	0.72	469.62	469.78	469.83	469.96	0.082630	1.89	0.38	2.74	1.62
B.06.1	B.06.1	104.36	Tr500	1.04	469.62	469.80	469.89	470.08	0.109159	2.35	0.44	2.81	1.89
B.06.1	B.06.1	94.36	Tr200	0.86	469.08	469.30	469.32	469.43	0.037673	1.57	0.55	2.71	1.12
B.06.1	B.06.1	94.36	Tr050	0.58	469.08	469.25	469.26	469.35	0.040018	1.40	0.41	2.60	1.12
B.06.1	B.06.1	94.36	Tr100	0.72	469.08	469.28	469.29	469.39	0.038478	1.49	0.48	2.65	1.12
B.06.1	B.06.1	94.36	Tr500	1.04	469.08	469.33	469.35	469.47	0.034637	1.64	0.64	2.78	1.09
B.06.1	B.06.1	84.11	Tr200	0.86	467.90	468.02	468.14	468.53	0.309988	3.16	0.27	2.38	2.98
B.06.1	B.06.1	84.11	Tr050	0.58	467.90	467.99	468.09	468.40	0.348176	2.83	0.21	2.34	3.05
B.06.1	B.06.1	84.11	Tr100	0.72	467.90	468.01	468.12	468.47	0.330581	3.02	0.24	2.36	3.03
B.06.1	B.06.1	84.11	Tr500	1.04	467.90	468.04	468.18	468.62	0.307718	3.38	0.31	2.40	3.02
B.06.1	B.06.1	74.11	Tr200	0.86	467.07	467.45	467.47	467.62	0.036164	1.82	0.47	1.46	1.03
B.06.1	B.06.1	74.11	Tr050	0.58	467.07	467.38	467.38	467.51	0.034794	1.61	0.36	1.36	1.00
B.06.1	B.06.1	74.11	Tr100	0.72	467.07	467.42	467.42	467.57	0.036239	1.74	0.41	1.41	1.02
B.06.1	B.06.1	74.11	Tr500	1.04	467.07	467.50	467.51	467.69	0.037328	1.95	0.53	1.51	1.04
B.06.1	B.06.1	63.44	Tr200	0.86	465.73	466.40	465.99	466.42	0.001809	0.60	1.44	2.25	0.24
B.06.1	B.06.1	63.44	Tr050	0.58	465.73	466.40	465.93	466.41	0.000818	0.40	1.45	2.25	0.16
B.06.1	B.06.1	63.44	Tr100	0.72	465.73	466.40	465.96	466.41	0.001264	0.50	1.45	2.25	0.20
B.06.1	B.06.1	63.44	Tr500	1.04	465.73	466.40	466.03	466.42	0.002657	0.72	1.44	2.25	0.29
B.06.1	B.06.1	54.55	Tr200	0.86	465.64	466.40		466.40	0.000485	0.35	2.44	4.17	0.15
B.06.1	B.06.1	54.55	Tr050	0.58	465.64	466.40		466.40	0.000219	0.24	2.45	4.18	0.10
B.06.1	B.06.1	54.55	Tr100	0.72	465.64	466.40		466.40	0.000339	0.29	2.45	4.17	0.12
B.06.1	B.06.1	54.55	Tr500	1.04	465.64	466.40		466.41	0.000712	0.43	2.44	4.17	0.18
B.06.1	B.06.1	44.55	Tr200	0.86	465.27	466.40	465.71	466.40	0.000144	0.13	6.77	23.58	0.08
B.06.1	B.06.1	44.55	Tr050	0.58	465.27	466.40	465.63	466.40	0.000066	0.09	6.77	23.58	0.05
B.06.1	B.06.1	44.55	Tr100	0.72	465.27	466.40	465.68	466.40	0.000101	0.11	6.77	23.58	0.06
B.06.1	B.06.1	44.55	Tr500	1.04	465.27	466.40	465.75	466.40	0.000211	0.15	6.76	23.58	0.09
B.06.1	B.06.1	35.39	Tr200	0.86	465.07	466.40	465.31	466.40	0.000017	0.07	13.09	24.76	0.03
B.06.1	B.06.1	35.39	Tr050	0.58	465.07	466.40	465.25	466.40	0.000008	0.04	13.09	24.76	0.02
B.06.1	B.06.1	35.39	Tr100	0.72	465.07	466.40	465.28	466.40	0.000012	0.06	13.09	24.76	0.02
B.06.1	B.06.1	35.39	Tr500	1.04	465.07	466.40	465.33	466.40	0.000025	0.08	13.09	24.76	0.03
B.06.1	B.06.1	16.39	Tr200	0.86	464.46	466.40	464.70	466.40	0.000001	0.02	38.14	50.00	0.01
B.06.1	B.06.1	16.39	Tr050	0.58	464.46	466.40	464.65	466.40	0.000001	0.02	38.14	50.00	0.01
B.06.1	B.06.1	16.39	Tr100	0.72	464.46	466.40	464.68	466.40	0.000001	0.02	38.14	50.00	0.01
B.06.1	B.06.1	16.39	Tr500	1.04	464.46	466.40	464.73	466.40	0.000002	0.03	38.14	50.00	0.01
B.06	B.06	1194.58	Tr200	56.01	465.95	468.26	467.96	468.41	0.007024	1.70	32.95	44.35	0.63
B.06	B.06	1194.58	Tr050	37.34	465.95	467.90	467.72	468.09	0.009967	1.94	19.29	27.59	0.74
B.06	B.06	1194.58	Tr100	46.31	465.95	468.11	467.84	468.27	0.009493	1.75	26.40	42.50	0.71
B.06	B.06	1194.58	Tr500	69.58	465.95	468.45	468.14	468.59	0.005294	1.68	41.40	46.69	0.57
B.06	B.06	1184.58	Tr200	56.01	465.77	467.84	467.84	468.27	0.017273	2.93	19.12	21.99	1.00
B.06	B.06	1184.58	Tr050	37.34	465.77	467.56	467.56	467.94	0.018121	2.75	13.57	17.66	1.00
B.06	B.06	1184.58	Tr100	46.31	465.77	467.70	467.70	468.11	0.017490	2.83	16.36	19.96	1.00
B.06	B.06	1184.58	Tr500	69.58	465.77	467.99	467.99	468.47	0.016562	3.07	22.71	24.38	1.00
B.06	B.06	1174.58	Tr200	56.01	465.43	467.19	467.43	468.01	0.033867	3.99	14.03	16.82	1.40
B.06	B.06	1174.58	Tr050	37.34	465.43	466.92	467.14	467.65	0.037407	3.78	9.89	13.90	1.43
B.06	B.06	1174.58	Tr100	46.31	465.43	467.06	467.29	467.83	0.035318	3.89	11.92	15.36	1.41
B.06	B.06	1174.58	Tr500	69.58	465.43	467.36	467.60	468.22	0.030851	4.09	17.03	19.30	1.36
B.06	B.06	1164.58	Tr200	56.01	465.31	467.37	467.16	467.62	0.007896	2.19	26.20	31.33	0.70
B.06	B.06	1164.58	Tr050	37.34	465.31	467.15	466.95	467.33	0.008492	1.91	19.58	26.87	0.70
B.06	B.06	1164.58	Tr100	46.31	465.31	467.26	467.07	467.48	0.008119	2.05	22.83	29.15	0.70
B.06	B.06	1164.58	Tr500	69.58	465.31	467.09	467.30	467.84	0.038294	3.85	18.05	25.74	1.46
B.06	B.06	1154.58	Tr200	56.01	465.13	467.38		467.52	0.005076	1.65	33.86	37.24	0.55
B.06	B.06	1154.58	Tr050	37.34	465.13	467.13		467.24	0.004998	1.48	25.20	32.29	0.54
B.06	B.06	1154.58	Tr100	46.31	465.13	467.26		467.38	0.005073	1.57	29.44	34.90	0.55
B.06	B.06	1154.58	Tr500	69.58	465.13	467.53	467.12	467.69	0.005006	1.76	39.49	40.03	0.56

River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
B.06	B.06	1144.58	Tr200	56.01	465.00	467.32		467.47	0.005205	1.71	32.83	34.77	0.56
B.06	B.06	1144.58	Tr050	37.34	465.00	467.08		467.20	0.004810	1.49	25.05	30.58	0.53
B.06	B.06	1144.58	Tr100	46.31	465.00	467.20		467.33	0.005037	1.60	28.87	32.71	0.55
B.06	B.06	1144.58	Tr500	69.58	465.00	467.46		467.63	0.005300	1.84	37.88	37.25	0.58
B.06	B.06	1134.58	Tr200	56.01	465.00	467.25		467.41	0.005977	1.81	31.00	33.15	0.60
B.06	B.06	1134.58	Tr050	37.34	465.00	467.02		467.14	0.005485	1.57	23.86	29.62	0.56
B.06	B.06	1134.58	Tr100	46.31	465.00	467.13		467.28	0.005761	1.69	27.38	31.41	0.58
B.06	B.06	1134.58	Tr500	69.58	465.00	467.38		467.57	0.006248	1.97	35.38	35.13	0.62
B.06	B.06	1124.58	Tr200	56.01	465.00	467.22		467.35	0.004339	1.61	34.77	34.99	0.52
B.06	B.06	1124.58	Tr050	37.34	465.00	466.99		467.09	0.003834	1.37	27.23	31.78	0.47
B.06	B.06	1124.58	Tr100	46.31	465.00	467.11		467.22	0.004110	1.50	30.96	33.40	0.50
B.06	B.06	1124.58	Tr500	69.58	465.00	467.35		467.51	0.004630	1.77	39.36	36.80	0.54
B.06	B.06	1114.58	Tr200	56.01	465.00	467.18		467.31	0.003979	1.55	36.07	36.14	0.50
B.06	B.06	1114.58	Tr050	37.34	465.00	466.96		467.05	0.003531	1.32	28.35	33.28	0.46
B.06	B.06	1114.58	Tr100	46.31	465.00	467.07		467.18	0.003774	1.44	32.17	34.72	0.48
B.06	B.06	1114.58	Tr500	69.58	465.00	467.31		467.46	0.004261	1.71	40.71	37.76	0.52
B.06	B.06	1104.58	Tr200	56.01	465.00	467.14		467.26	0.004225	1.53	36.51	39.15	0.51
B.06	B.06	1104.58	Tr050	37.34	465.00	466.92		467.01	0.004031	1.33	28.12	36.14	0.48
B.06	B.06	1104.58	Tr100	46.31	465.00	467.03		467.14	0.004137	1.43	32.28	37.68	0.49
B.06	B.06	1104.58	Tr500	69.58	465.00	467.27		467.41	0.004402	1.68	41.52	40.82	0.53
B.06	B.06	1094.58	Tr200	56.01	464.92	466.82	466.82	467.16	0.018746	2.59	21.65	31.94	1.00
B.06	B.06	1094.58	Tr050	37.34	464.92	466.64	466.64	466.92	0.020115	2.31	16.15	29.75	1.00
B.06	B.06	1094.58	Tr100	46.31	464.92	466.73	466.73	467.04	0.019474	2.46	18.79	30.67	1.01
B.06	B.06	1094.58	Tr500	69.58	464.92	466.96	466.96	467.31	0.018115	2.63	26.43	37.97	1.00
B.06	B.06	1084.58	Tr200	56.01	464.92	466.25	466.42	466.86	0.045839	3.47	16.12	30.41	1.52
B.06	B.06	1084.58	Tr050	37.34	464.92	466.47	466.25	466.60	0.006309	1.60	23.63	35.84	0.60
B.06	B.06	1084.58	Tr100	46.31	464.92	466.55	466.33	466.71	0.006805	1.78	26.57	37.70	0.63
B.06	B.06	1084.58	Tr500	69.58	464.92	466.35	466.54	467.01	0.041618	3.61	19.28	32.89	1.48
B.06	B.06	1074.58	Tr200	56.01	464.89	466.56	466.40	466.74	0.009518	1.85	30.27	45.44	0.72
B.06	B.06	1074.58	Tr050	37.34	464.89	466.40		466.53	0.008673	1.61	23.22	40.06	0.67
B.06	B.06	1074.58	Tr100	46.31	464.89	466.48		466.63	0.009311	1.75	26.52	42.67	0.71
B.06	B.06	1074.58	Tr500	69.58	464.89	466.68	466.50	466.87	0.009189	1.96	35.58	49.06	0.72
B.06	B.06	1064.58	Tr200	56.01	464.61	466.53		466.64	0.005906	1.47	38.14	56.52	0.57
B.06	B.06	1064.58	Tr050	37.34	464.61	466.35		466.44	0.006754	1.33	28.11	53.54	0.59
B.06	B.06	1064.58	Tr100	46.31	464.61	466.44		466.54	0.006397	1.41	32.86	55.02	0.58
B.06	B.06	1064.58	Tr500	69.58	464.61	466.66		466.78	0.005259	1.54	45.33	58.21	0.55
B.06	B.06	1054.58	Tr200	56.01	464.49	466.51		466.59	0.003810	1.22	45.84	64.49	0.46
B.06	B.06	1054.58	Tr050	37.34	464.49	466.31		466.38	0.004618	1.12	33.45	62.22	0.49
B.06	B.06	1054.58	Tr100	46.31	464.49	466.41		466.48	0.004214	1.18	39.38	63.28	0.48
B.06	B.06	1054.58	Tr500	69.58	464.49	466.64		466.73	0.003371	1.28	54.53	66.09	0.45
B.06	B.06	1044.58	Tr200	56.01	464.36	466.47		466.55	0.004223	1.24	45.11	66.89	0.48
B.06	B.06	1044.58	Tr050	37.34	464.36	466.25		466.32	0.006375	1.22	30.72	64.08	0.56
B.06	B.06	1044.58	Tr100	46.31	464.36	466.36		466.43	0.005084	1.23	37.74	65.46	0.52
B.06	B.06	1044.58	Tr500	69.58	464.36	466.61		466.69	0.003503	1.27	54.74	68.70	0.45
B.06	B.06	1034.58	Tr200	56.01	464.30	466.44		466.51	0.003200	1.12	49.99	70.11	0.42
B.06	B.06	1034.58	Tr050	37.34	464.30	466.20		466.26	0.005305	1.13	33.18	67.57	0.51
B.06	B.06	1034.58	Tr100	46.31	464.30	466.32		466.38	0.003935	1.11	41.61	68.86	0.46
B.06	B.06	1034.58	Tr500	69.58	464.30	466.59		466.66	0.002663	1.15	60.52	71.66	0.40
B.06	B.06	1024.58	Tr200	56.01	464.30	466.44		466.48	0.001021	0.82	68.02	64.78	0.26
B.06	B.06	1024.58	Tr050	37.34	464.30	466.20		466.23	0.000971	0.71	52.91	61.17	0.24
B.06	B.06	1024.58	Tr100	46.31	464.30	466.33		466.36	0.000998	0.77	60.42	62.99	0.25
B.06	B.06	1024.58	Tr500	69.58	464.30	466.59		466.63	0.001040	0.90	77.74	66.99	0.26
B.06	B.06	1014.59	Tr200	56.01	464.30	466.44		466.47	0.000698	0.75	75.02	62.20	0.22
B.06	B.06	1014.59	Tr050	37.34	464.30	466.20		466.22	0.000570	0.62	60.68	57.80	0.19
B.06	B.06	1014.59	Tr100	46.31	464.30	466.32		466.35	0.000638	0.68	67.77	60.02	0.21
B.06	B.06	1014.59	Tr500	69.58	464.30	466.59		466.62	0.000756	0.83	84.36	64.90	0.23
B.06	B.06	1004.58	Tr200	56.01	464.30	466.42		466.46	0.001209	0.89	62.96	60.61	0.28
B.06	B.06	1004.58	Tr050	37.34	464.30	466.18		466.21	0.001074	0.76	49.31	55.30	0.26
B.06	B.06	1004.58	Tr100	46.31	464.30	466.30		466.34	0.001150	0.83	56.02	57.97	0.27
B.06	B.06	1004.58	Tr500	69.58	464.30	466.56		466.61	0.001253	0.97	72.03	64.19	0.29
B.06	B.06	994.58	Tr200	56.01	464.30	466.40		466.45	0.001416	0.95	59.23	58.55	0.30
B.06	B.06	994.58	Tr050	37.34	464.30	466.17		466.20	0.001257	0.81	46.24	52.99	0.28
B.06	B.06	994.58	Tr100	46.31	464.30	466.28		466.32	0.001347	0.88	52.60	55.78	0.29
B.06	B.06	994.58	Tr500	69.58	464.30	466.54		466.60	0.001456	1.02	67.92	61.99	0.31
B.06	B.06	984.58	Tr200	56.01	464.19	466.39		466.43	0.001055	0.86	64.81	58.78	0.26
B.06	B.06	984.58	Tr050	37.34	464.19	466.16		466.19	0.000877	0.72	51.78	53.67	0.23
B.06	B.06	984.58	Tr100	46.31	464.19	466.28		466.31	0.000974	0.80	58.18	56.24	0.25
B.06	B.06	984.58	Tr500	69.58	464.19	466.54		466.58	0.001121	0.95	73.50	61.96	0.28
B.06	B.06	974.58	Tr200	56.01	464.05	466.39		466.42	0.000837	0.75	74.57	70.29	0.23

River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
B.06	B.06	974.58	Tr050	37.34	464.05	466.16		466.18	0.000652	0.63	59.21	60.14	0.20
B.06	B.06	974.58	Tr100	46.31	464.05	466.27		466.30	0.000784	0.70	66.61	67.10	0.22
B.06	B.06	974.58	Tr500	69.58	464.05	466.54		466.57	0.000871	0.82	85.03	73.85	0.24
B.06	B.06	964.58	Tr200	56.01	464.00	466.38		466.41	0.000725	0.72	77.77	70.05	0.22
B.06	B.06	964.58	Tr050	37.34	464.00	466.15		466.17	0.000614	0.60	62.16	64.87	0.20
B.06	B.06	964.58	Tr100	46.31	464.00	466.27		466.29	0.000677	0.66	69.84	67.64	0.21
B.06	B.06	964.58	Tr500	69.58	464.00	466.53		466.56	0.000766	0.79	88.14	73.23	0.23
B.06	B.06	954.58	Tr200	56.01	464.00	466.38		466.40	0.000740	0.72	78.21	72.16	0.22
B.06	B.06	954.58	Tr050	37.34	464.00	466.15		466.17	0.000578	0.60	62.53	62.99	0.19
B.06	B.06	954.58	Tr100	46.31	464.00	466.26		466.28	0.000681	0.66	70.09	68.60	0.21
B.06	B.06	954.58	Tr500	69.58	464.00	466.52		466.55	0.000776	0.78	88.87	75.52	0.23
B.06	B.06	944.58	Tr200	56.01	464.00	466.36		466.39	0.001188	0.86	65.10	64.99	0.27
B.06	B.06	944.58	Tr050	37.34	464.00	466.13		466.16	0.001021	0.73	51.25	58.62	0.25
B.06	B.06	944.58	Tr100	46.31	464.00	466.24		466.27	0.001111	0.80	57.98	61.56	0.26
B.06	B.06	944.58	Tr500	69.58	464.00	466.50		466.54	0.001243	0.93	74.76	70.80	0.28
B.06	B.06	924.58	Tr200	56.01	464.00	466.14		466.33	0.008249	1.93	29.00	36.43	0.69
B.06	B.06	924.58	Tr050	37.34	464.00	465.97		466.10	0.007775	1.64	22.83	35.28	0.65
B.06	B.06	924.58	Tr100	46.31	464.00	466.05		466.21	0.008135	1.79	25.87	36.07	0.68
B.06	B.06	924.58	Tr500	69.58	464.00	466.24		466.47	0.008503	2.12	32.86	36.93	0.72
B.06	B.06	914.58	Tr200	56.01	464.00	465.93	465.87	466.21	0.015302	2.31	24.21	36.77	0.91
B.06	B.06	914.58	Tr050	37.34	464.00	465.73	465.72	465.98	0.019256	2.18	17.12	33.73	0.98
B.06	B.06	914.58	Tr100	46.31	464.00	465.83	465.80	466.09	0.016947	2.25	20.60	35.25	0.94
B.06	B.06	914.58	Tr500	69.58	464.00	466.05	465.99	466.35	0.014389	2.45	28.43	38.44	0.90
B.06	B.06	904.58	Tr200	56.01	464.00	465.94		466.08	0.005291	1.65	34.01	39.04	0.56
B.06	B.06	904.58	Tr050	37.34	464.00	465.74		465.84	0.004878	1.42	26.34	35.61	0.53
B.06	B.06	904.58	Tr100	46.31	464.00	465.84		465.96	0.005051	1.53	30.25	37.40	0.54
B.06	B.06	904.58	Tr500	69.58	464.00	466.06		466.22	0.005557	1.80	38.64	40.80	0.59
B.06	B.06	894.58	Tr200	56.01	463.97	465.65	465.64	465.97	0.018835	2.50	22.39	35.64	1.01
B.06	B.06	894.58	Tr050	37.34	463.97	465.44	465.44	465.73	0.019986	2.38	15.69	28.13	1.02
B.06	B.06	894.58	Tr100	46.31	463.97	465.56	465.56	465.86	0.019447	2.43	19.09	32.60	1.01
B.06	B.06	894.58	Tr500	69.58	463.97	465.79	465.76	466.12	0.015774	2.55	27.30	37.76	0.95
B.06	B.06	884.58	Tr200	56.01	463.97	465.58		465.80	0.010571	2.09	26.82	36.44	0.78
B.06	B.06	884.58	Tr050	37.34	463.97	465.27	465.23	465.53	0.015641	2.27	16.48	26.58	0.92
B.06	B.06	884.58	Tr100	46.31	463.97	465.43	465.37	465.66	0.013513	2.12	21.80	34.70	0.86
B.06	B.06	884.58	Tr500	69.58	463.97	465.74		465.97	0.008496	2.10	33.14	38.57	0.72
B.06	B.06	874.58	Tr200	56.01	463.86	465.59		465.71	0.003651	1.50	37.43	37.71	0.48
B.06	B.06	874.58	Tr050	37.34	463.86	465.32		465.41	0.004089	1.36	27.42	34.69	0.49
B.06	B.06	874.58	Tr100	46.31	463.86	465.46		465.56	0.003840	1.43	32.35	36.22	0.48
B.06	B.06	874.58	Tr500	69.58	463.86	465.76		465.89	0.003460	1.59	43.89	39.52	0.48
B.06	B.06	864.58	Tr200	56.01	463.68	465.55		465.67	0.003912	1.49	37.54	39.67	0.49
B.06	B.06	864.58	Tr050	37.34	463.68	465.26		465.37	0.004789	1.40	26.59	35.82	0.52
B.06	B.06	864.58	Tr100	46.31	463.68	465.41		465.52	0.004267	1.45	32.00	37.77	0.50
B.06	B.06	864.58	Tr500	69.58	463.68	465.73		465.85	0.003585	1.56	44.57	41.95	0.48
B.06	B.06	854.58	Tr200	56.01	463.59	465.55		465.63	0.002050	1.26	44.56	37.51	0.37
B.06	B.06	854.58	Tr050	37.34	463.59	465.26		465.32	0.001881	1.09	34.36	33.80	0.34
B.06	B.06	854.58	Tr100	46.31	463.59	465.41		465.48	0.001976	1.18	39.38	35.68	0.36
B.06	B.06	854.58	Tr500	69.58	463.59	465.72		465.82	0.002104	1.36	51.15	39.73	0.38
B.06	B.06	844.58	Tr200	56.01	463.43	465.29		465.57	0.011595	2.35	23.86	28.34	0.82
B.06	B.06	844.58	Tr050	37.34	463.43	464.98	464.92	465.26	0.015330	2.33	16.02	23.68	0.90
B.06	B.06	844.58	Tr100	46.31	463.43	465.14		465.42	0.012699	2.33	19.91	25.63	0.84
B.06	B.06	844.58	Tr500	69.58	463.43	465.46		465.76	0.010249	2.39	29.12	31.82	0.78
B.06	B.06	834.58	Tr200	56.01	463.30	465.24		465.46	0.007216	2.06	27.18	27.67	0.66
B.06	B.06	834.58	Tr050	37.34	463.30	464.96		465.13	0.006555	1.86	20.07	22.10	0.62
B.06	B.06	834.58	Tr100	46.31	463.30	465.10		465.30	0.006975	1.97	23.52	24.96	0.65
B.06	B.06	834.58	Tr500	69.58	463.30	465.42		465.66	0.006941	2.15	32.33	31.08	0.66
B.06	B.06	824.58	Tr200	56.01	463.23	465.01	464.88	465.35	0.012441	2.60	21.54	23.18	0.86
B.06	B.06	824.58	Tr050	37.34	463.23	464.83		465.05	0.008480	2.12	17.63	19.30	0.71
B.06	B.06	824.58	Tr100	46.31	463.23	464.92		465.21	0.010427	2.36	19.62	21.36	0.79
B.06	B.06	824.58	Tr500	69.58	463.23	465.11	465.06	465.54	0.014760	2.92	23.87	25.21	0.95
B.06	B.06	814.58	Tr200	56.01	463.14	465.02		465.22	0.006836	1.95	28.66	30.50	0.64
B.06	B.06	814.58	Tr050	37.34	463.14	464.82		464.96	0.005614	1.63	22.84	27.40	0.57
B.06	B.06	814.58	Tr100	46.31	463.14	464.93		465.09	0.006177	1.79	25.85	29.05	0.61
B.06	B.06	814.58	Tr500	69.58	463.14	465.14		465.38	0.007412	2.15	32.37	32.33	0.68
B.06	B.06	804.58	Tr200	56.01	463.13	464.94		465.14	0.008407	2.01	27.83	33.35	0.70
B.06	B.06	804.58	Tr050	37.34	463.13	464.74		464.89	0.007662	1.73	21.58	30.24	0.65
B.06	B.06	804.58	Tr100	46.31	463.13	464.84		465.02	0.008089	1.88	24.65	31.81	0.68
B.06	B.06	804.58	Tr500	69.58	463.13	465.06		465.30	0.008654	2.18	31.90	35.23	0.73
B.06	B.06	794.58	Tr200	56.01	463.11	464.92		465.06	0.004833	1.64	34.22	36.97	0.54
B.06	B.06	794.58	Tr050	37.34	463.11	464.72		464.82	0.004379	1.38	26.99	34.87	0.50
B.06	B.06	794.58	Tr100	46.31	463.11	464.82		464.94	0.004627	1.51	30.57	35.92	0.52







River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
B.06	B.06	424.58	Tr200	56.01	453.09	455.35		455.44	0.003068	1.30	43.02	46.70	0.43
B.06	B.06	424.58	Tr050	37.34	453.09	455.03		455.12	0.003814	1.27	29.44	39.07	0.47
B.06	B.06	424.58	Tr100	46.31	453.09	455.19		455.28	0.003416	1.29	35.93	42.89	0.45
B.06	B.06	424.58	Tr500	69.58	453.09	455.55		455.64	0.002662	1.32	52.65	51.60	0.41
B.06	B.06	414.58	Tr200	56.01	453.02	455.32		455.41	0.002871	1.34	41.75	41.05	0.42
B.06	B.06	414.58	Tr050	37.34	453.02	455.00		455.08	0.003280	1.26	29.68	35.48	0.44
B.06	B.06	414.58	Tr100	46.31	453.02	455.16		455.24	0.003068	1.30	35.51	38.28	0.43
B.06	B.06	414.58	Tr500	69.58	453.02	455.51		455.61	0.002613	1.39	50.11	44.50	0.41
B.06	B.06	404.58	Tr200	56.01	453.00	455.24		455.37	0.004467	1.60	35.00	36.77	0.52
B.06	B.06	404.58	Tr050	37.34	453.00	454.91		455.03	0.005811	1.57	23.79	31.29	0.57
B.06	B.06	404.58	Tr100	46.31	453.00	455.07		455.20	0.005040	1.59	29.21	34.05	0.55
B.06	B.06	404.58	Tr500	69.58	453.00	455.44		455.57	0.003862	1.63	42.74	40.12	0.50
B.06	B.06	394.58	Tr200	56.01	452.90	455.23		455.32	0.002804	1.35	41.59	40.15	0.42
B.06	B.06	394.58	Tr050	37.34	452.90	454.89		454.98	0.003416	1.29	28.99	34.70	0.45
B.06	B.06	394.58	Tr100	46.31	452.90	455.06		455.15	0.003072	1.32	35.13	37.50	0.43
B.06	B.06	394.58	Tr500	69.58	452.90	455.43		455.53	0.002507	1.39	50.15	43.41	0.41
B.06	B.06	384.58	Tr200	56.01	452.88	455.12		455.28	0.004980	1.75	31.92	31.75	0.56
B.06	B.06	384.58	Tr050	37.34	452.88	454.78		454.93	0.005932	1.70	22.03	26.27	0.59
B.06	B.06	384.58	Tr100	46.31	452.88	454.95		455.10	0.005426	1.73	26.79	29.04	0.57
B.06	B.06	384.58	Tr500	69.58	452.88	455.33		455.49	0.004403	1.79	38.88	35.10	0.54
B.06	B.06	374.58	Tr200	56.01	452.77	455.05		455.23	0.005233	1.86	30.08	28.30	0.58
B.06	B.06	374.58	Tr050	37.34	452.77	454.71		454.87	0.006006	1.76	21.17	23.94	0.60
B.06	B.06	374.58	Tr100	46.31	452.77	454.88		455.05	0.005584	1.82	25.49	26.13	0.59
B.06	B.06	374.58	Tr500	69.58	452.77	455.26		455.44	0.004748	1.92	36.26	31.05	0.56
B.06	B.06	364.57	Tr200	56.01	452.64	455.05		455.17	0.003005	1.50	37.22	31.81	0.44
B.06	B.06	364.57	Tr050	37.34	452.64	454.70		454.80	0.003432	1.40	26.76	28.29	0.46
B.06	B.06	364.57	Tr100	46.31	452.64	454.88		454.99	0.003179	1.45	31.92	30.07	0.45
B.06	B.06	364.57	Tr500	69.58	452.64	455.26		455.39	0.002796	1.58	44.18	33.97	0.44
B.06	B.06	354.57	Tr200	56.01	452.44	455.05		455.13	0.002064	1.31	42.66	33.54	0.37
B.06	B.06	354.57	Tr050	37.34	452.44	454.70		454.77	0.002211	1.19	31.47	30.31	0.37
B.06	B.06	354.57	Tr100	46.31	452.44	454.87		454.95	0.002118	1.25	37.02	31.91	0.37
B.06	B.06	354.57	Tr500	69.58	452.44	455.26		455.36	0.001990	1.39	50.03	35.66	0.37
B.06	B.06	344.57	Tr200	56.01	452.17	455.02		455.11	0.002020	1.33	42.04	31.58	0.37
B.06	B.06	344.57	Tr050	37.34	452.17	454.67		454.75	0.002110	1.19	31.45	29.04	0.36
B.06	B.06	344.57	Tr100	46.31	452.17	454.85		454.93	0.002050	1.26	36.74	30.34	0.37
B.06	B.06	344.57	Tr500	69.58	452.17	455.23		455.34	0.001978	1.42	48.88	33.11	0.37
B.06	B.06	334.57	Tr200	56.01	452.12	454.98		455.09	0.002500	1.44	38.82	29.84	0.40
B.06	B.06	334.57	Tr050	37.34	452.12	454.63		454.72	0.002688	1.29	28.84	27.54	0.40
B.06	B.06	334.57	Tr100	46.31	452.12	454.81		454.91	0.002569	1.37	33.83	28.71	0.40
B.06	B.06	334.57	Tr500	69.58	452.12	455.19		455.31	0.002422	1.54	45.24	31.23	0.41
B.06	B.06	324.57	Tr200	56.01	452.09	454.93		455.06	0.002931	1.59	35.23	26.12	0.44
B.06	B.06	324.57	Tr050	37.34	452.09	454.59		454.69	0.002930	1.40	26.72	24.07	0.42
B.06	B.06	324.57	Tr100	46.31	452.09	454.76		454.88	0.002919	1.50	30.97	25.11	0.43
B.06	B.06	324.57	Tr500	69.58	452.09	455.14		455.29	0.002927	1.71	40.70	27.35	0.44
B.06	B.06	314.57	Tr200	56.01	452.05	454.86		455.02	0.004155	1.78	31.47	25.81	0.51
B.06	B.06	314.57	Tr050	37.34	452.05	454.52		454.65	0.004487	1.62	23.10	23.18	0.52
B.06	B.06	314.57	Tr100	46.31	452.05	454.69		454.84	0.004279	1.70	27.25	24.50	0.51
B.06	B.06	314.57	Tr500	69.58	452.05	455.07		455.25	0.003980	1.88	36.98	27.45	0.51
B.06	B.06	304.57	Tr200	56.01	452.00	454.80		454.98	0.005101	1.88	29.78	26.41	0.57
B.06	B.06	304.57	Tr050	37.34	452.00	454.43		454.60	0.006147	1.80	20.78	22.63	0.60
B.06	B.06	304.57	Tr100	46.31	452.00	454.62		454.79	0.005664	1.83	25.24	25.13	0.58
B.06	B.06	304.57	Tr500	69.58	452.00	455.01		455.21	0.004588	1.95	35.61	27.96	0.55
B.06	B.06	294.58	Tr200	56.01	452.00	454.64		454.91	0.007243	2.27	24.63	20.64	0.66
B.06	B.06	294.58	Tr050	37.34	452.00	454.30		454.52	0.008267	2.09	17.82	18.69	0.69
B.06	B.06	294.58	Tr100	46.31	452.00	454.48		454.72	0.007565	2.18	21.28	19.70	0.67
B.06	B.06	294.58	Tr500	69.58	452.00	454.84		455.14	0.006993	2.42	28.81	21.77	0.67
B.06	B.06	284.58	Tr200	56.01	452.00	454.46		454.81	0.010422	2.64	21.18	18.30	0.79
B.06	B.06	284.58	Tr050	37.34	452.00	454.14		454.43	0.010308	2.36	15.81	16.01	0.76
B.06	B.06	284.58	Tr100	46.31	452.00	454.30		454.62	0.010369	2.51	18.47	17.21	0.77
B.06	B.06	284.58	Tr500	69.58	452.00	454.63	454.42	455.04	0.010725	2.85	24.38	19.52	0.81
B.06	B.06	274.58	Tr200	56.01	451.99	454.14	454.14	454.66	0.017612	3.20	17.51	17.21	1.01
B.06	B.06	274.58	Tr050	37.34	451.99	453.84	453.84	454.28	0.018288	2.93	12.76	14.70	1.00
B.06	B.06	274.58	Tr100	46.31	451.99	453.99	453.99	454.48	0.017304	3.08	15.03	15.36	0.99
B.06	B.06	274.58	Tr500	69.58	451.99	454.33	454.33	454.90	0.016565	3.34	20.82	18.73	1.00
B.06	B.06	264.57	Tr200	56.01	451.96	453.52	453.75	454.37	0.037807	4.09	13.69	16.76	1.45
B.06	B.06	264.57	Tr050	37.34	451.96	453.30	453.49	453.99	0.040325	3.67	10.19	15.53	1.45
B.06	B.06	264.57	Tr100	46.31	451.96	453.40	453.63	454.19	0.039463	3.94	11.74	15.69	1.46
B.06	B.06	264.57	Tr500	69.58	451.96	453.65	453.92	454.62	0.037046	4.35	16.01	17.94	1.46
B.06	B.06	254.57	Tr200	56.01	451.92	453.74	453.39	453.99	0.006833	2.21	25.33	22.11	0.66
B.06	B.06	254.57	Tr050	37.34	451.92	453.45	453.11	453.64	0.006310	1.93	19.31	19.45	0.62

River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
B.06	B.06	254.57	Tr100	46.31	451.92	453.60	453.25	453.82	0.006629	2.08	22.24	20.79	0.64
B.06	B.06	254.57	Tr500	69.58	451.92	453.93	453.56	454.21	0.006725	2.35	29.60	23.78	0.67
B.06	B.06	244.57	Tr200	56.01	451.82	453.38	453.38	453.86	0.016965	3.07	18.26	19.48	1.01
B.06	B.06	244.57	Tr050	37.34	451.82	453.13	453.13	453.52	0.018261	2.76	13.54	17.99	1.01
B.06	B.06	244.57	Tr100	46.31	451.82	453.26	453.26	453.69	0.017538	2.92	15.87	18.74	1.01
B.06	B.06	244.57	Tr500	69.58	451.82	453.54	453.54	454.08	0.016388	3.26	21.33	20.40	1.01
B.06	B.06	234.57	Tr200	56.01	451.42	452.76	452.99	453.58	0.040260	4.00	13.99	19.07	1.49
B.06	B.06	234.57	Tr050	37.34	451.42	452.57	452.75	453.22	0.043427	3.60	10.38	17.63	1.50
B.06	B.06	234.57	Tr100	46.31	451.42	452.66	452.88	453.40	0.041533	3.80	12.17	18.35	1.49
B.06	B.06	234.57	Tr500	69.58	451.42	452.89	453.14	453.80	0.037875	4.23	16.46	20.00	1.48
B.06	B.06	224.57	Tr200	56.01	450.89	452.91	452.92	453.38	0.018038	3.03	18.47	20.54	1.02
B.06	B.06	224.57	Tr050	37.34	450.89	452.70	452.69	453.05	0.018147	2.64	14.14	19.51	0.99
B.06	B.06	224.57	Tr100	46.31	450.89	452.80	452.80	453.22	0.018909	2.89	16.05	19.97	1.03
B.06	B.06	224.57	Tr500	69.58	450.89	453.07	453.07	453.59	0.017496	3.22	21.64	21.54	1.02
B.06	B.06	214.57	Tr200	56.01	449.87	452.10	452.37	453.04	0.062293	4.31	13.00	20.56	1.73
B.06	B.06	214.57	Tr050	37.34	449.87	451.92	452.17	452.70	0.067731	3.89	9.59	18.69	1.73
B.06	B.06	214.57	Tr100	46.31	449.87	452.02	452.26	452.86	0.064087	4.07	11.37	19.95	1.72
B.06	B.06	214.57	Tr500	69.58	449.87	452.21	452.51	453.25	0.056121	4.50	15.45	21.44	1.68
B.06	B.06	204.58	Tr200	56.01	449.43	450.77	451.17	452.20	0.105733	5.30	10.57	19.77	2.32
B.06	B.06	204.58	Tr050	37.34	449.43	450.63	450.95	451.79	0.114242	4.78	7.82	18.13	2.32
B.06	B.06	204.58	Tr100	46.31	449.43	450.70	451.07	452.00	0.109455	5.04	9.19	19.03	2.32
B.06	B.06	204.58	Tr500	69.58	449.43	450.86	451.31	452.46	0.100736	5.60	12.43	20.94	2.31
B.06	B.06	194.58	Tr200	56.01	448.21	450.02	450.37	451.19	0.082714	4.78	11.71	20.64	2.03
B.06	B.06	194.58	Tr050	37.34	448.21	449.69	450.14	451.02	0.052929	5.11	7.30	7.83	1.69
B.06	B.06	194.58	Tr100	46.31	448.21	449.90	450.27	451.12	0.070072	4.89	9.48	14.03	1.90
B.06	B.06	194.58	Tr500	69.58	448.21	450.11	450.50	451.46	0.084473	5.16	13.49	21.82	2.09
B.06	B.06	184.58	Tr200	56.01	447.75	449.28	449.66	450.50	0.057986	4.89	11.46	15.23	1.80
B.06	B.06	184.58	Tr050	37.34	447.75	448.95	449.39	450.35	0.084511	5.24	7.13	11.28	2.11
B.06	B.06	184.58	Tr100	46.31	447.75	449.12	449.52	450.41	0.069203	5.03	9.21	13.39	1.94
B.06	B.06	184.58	Tr500	69.58	447.75	449.40	449.83	450.77	0.058300	5.19	13.42	16.79	1.83
B.06	B.06	174.58	Tr200	56.01	446.00	447.63	448.26	449.71	0.084451	6.39	8.76	9.81	2.16
B.06	B.06	174.58	Tr050	37.34	446.00	447.25	447.92	449.39	0.095268	6.48	5.77	6.86	2.26
B.06	B.06	174.58	Tr100	46.31	446.00	447.45	448.09	449.57	0.081948	6.46	7.17	7.62	2.13
B.06	B.06	174.58	Tr500	69.58	446.00	447.80	448.47	449.99	0.086635	6.55	10.64	12.46	2.20
B.06	B.06	164.58	Tr200	56.01	445.84	447.79	448.10	448.77	0.046683	4.39	12.75	16.68	1.61
B.06	B.06	164.58	Tr050	37.34	445.84	447.49	447.83	448.42	0.043635	4.26	8.76	11.27	1.54
B.06	B.06	164.58	Tr100	46.31	445.84	447.61	447.96	448.66	0.044983	4.53	10.23	12.31	1.58
B.06	B.06	164.58	Tr500	69.58	445.84	447.91	448.25	449.02	0.049588	4.67	14.90	19.13	1.67
B.06	B.06	154.58	Tr200	56.01	445.60	447.05	447.41	448.22	0.061185	4.79	11.70	16.81	1.83
B.06	B.06	154.58	Tr050	37.34	445.60	446.82	447.16	447.88	0.066889	4.55	8.21	13.57	1.87
B.06	B.06	154.58	Tr100	46.31	445.60	446.92	447.28	448.10	0.068442	4.80	9.65	14.99	1.91
B.06	B.06	154.58	Tr500	69.58	445.60	447.17	447.57	448.46	0.059616	5.03	13.84	18.51	1.84
B.06	B.06	144.58	Tr200	56.01	445.41	447.69	447.21	447.87	0.004610	1.85	30.26	26.05	0.55
B.06	B.06	144.58	Tr050	37.34	445.41	447.32	446.95	447.48	0.005300	1.75	21.40	22.33	0.57
B.06	B.06	144.58	Tr100	46.31	445.41	447.51	447.09	447.68	0.004886	1.80	25.78	24.24	0.56
B.06	B.06	144.58	Tr500	69.58	445.41	447.90	447.37	448.09	0.004358	1.94	35.86	28.08	0.54
B.06	B.06	134.58	Tr200	56.01	445.11	447.24	447.24	447.75	0.016860	3.17	17.68	17.43	1.00
B.06	B.06	134.58	Tr050	37.34	445.11	446.91	446.91	447.36	0.018171	2.99	12.50	14.18	1.02
B.06	B.06	134.58	Tr100	46.31	445.11	447.07	447.07	447.56	0.017177	3.11	14.89	15.25	1.00
B.06	B.06	134.58	Tr500	69.58	445.11	447.43	447.43	447.98	0.016697	3.29	21.18	20.32	1.01
B.06	B.06	124.58	Tr200	56.01	444.54	446.50	446.78	447.45	0.046173	4.31	12.98	17.24	1.59
B.06	B.06	124.58	Tr050	37.34	444.54	446.30	446.52	447.05	0.047366	3.84	9.72	15.62	1.56
B.06	B.06	124.58	Tr100	46.31	444.54	446.40	446.64	447.25	0.047110	4.10	11.29	16.42	1.58
B.06	B.06	124.58	Tr500	69.58	444.54	446.63	446.94	447.68	0.042919	4.53	15.38	18.31	1.56
B.06	B.06	114.58	Tr200	56.01	443.94	445.54	445.99	446.92	0.052142	5.20	10.78	11.74	1.73
B.06	B.06	114.58	Tr050	37.34	443.94	445.21	445.69	446.49	0.055846	5.00	7.46	9.07	1.76
B.06	B.06	114.58	Tr100	46.31	443.94	445.38	445.83	446.71	0.050627	5.10	9.08	9.93	1.70
B.06	B.06	114.58	Tr500	69.58	443.94	445.73	446.17	447.15	0.055652	5.28	13.18	15.09	1.79
B.06	B.06	104.58	Tr200	56.01	443.36	444.70	445.15	446.24	0.087415	5.50	10.19	15.56	2.17
B.06	B.06	104.58	Tr050	37.34	443.36	444.51	444.88	445.78	0.092608	5.00	7.47	13.76	2.17
B.06	B.06	104.58	Tr100	46.31	443.36	444.60	445.02	446.03	0.091827	5.30	8.73	14.62	2.19
B.06	B.06	104.58	Tr500	69.58	443.36	444.82	445.32	446.47	0.078499	5.68	12.25	16.80	2.10
B.06	B.06	94.58	Tr200	56.01	443.10	444.64	444.84	445.36	0.047363	3.75	14.93	25.48	1.56
B.06	B.06	94.58	Tr050	37.34	443.10	444.54	444.65	445.00	0.035898	3.00	12.46	24.14	1.33
B.06	B.06	94.58	Tr100	46.31	443.10	444.59	444.74	445.18	0.042207	3.39	13.64	24.79	1.46
B.06	B.06	94.58	Tr500	69.58	443.10	444.71	444.97	445.60	0.052949	4.18	16.63	26.39	1.68
B.06	B.06	84.58	Tr200	56.01	442.99	444.79	444.63	444.95	0.008417	1.76	31.90	46.46	0.68
B.06	B.06	84.58	Tr050	37.34	442.99	444.62	444.49	444.74	0.009387	1.57	23.84	44.68	0.68
B.06	B.06	84.58	Tr100	46.31	442.99	444.70	444.56	444.85	0.008933	1.67	27.75	45.57	0.68
B.06	B.06	84.58	Tr500	69.58	442.99	444.90	444.70	445.08	0.008038	1.88	37.08	47.55	0.68

River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
B.06	B.06	74.58	Tr200	56.01	442.98	444.50	444.50	444.81	0.020729	2.46	22.76	39.70	1.04
B.06	B.06	74.58	Tr050	37.34	442.98	444.37	444.37	444.60	0.020252	2.10	17.80	38.79	0.99
B.06	B.06	74.58	Tr100	46.31	442.98	444.44	444.44	444.70	0.020275	2.28	20.35	39.26	1.01
B.06	B.06	74.58	Tr500	69.58	442.98	444.60	444.60	444.95	0.019464	2.62	26.57	40.35	1.03
B.06	B.06	64.58	Tr200	56.01	442.58	444.27	444.30	444.58	0.025701	2.48	22.57	45.58	1.13
B.06	B.06	64.58	Tr050	37.34	442.58	444.17	444.17	444.38	0.023504	2.08	17.99	44.42	1.04
B.06	B.06	64.58	Tr100	46.31	442.58	444.22	444.24	444.48	0.024691	2.28	20.28	45.00	1.09
B.06	B.06	64.58	Tr500	69.58	442.58	444.32	444.39	444.71	0.027970	2.77	25.14	46.21	1.19
B.06	B.06	54.58	Tr200	56.01	442.11	444.18	444.03	444.33	0.009947	1.75	31.93	53.49	0.73
B.06	B.06	54.58	Tr050	37.34	442.11	443.97	443.86	444.12	0.011945	1.73	21.64	42.56	0.77
B.06	B.06	54.58	Tr100	46.31	442.11	444.09	443.94	444.23	0.011005	1.71	27.11	50.96	0.75
B.06	B.06	54.58	Tr500	69.58	442.11	444.29	444.13	444.46	0.008828	1.84	37.88	54.43	0.70
B.06	B.06	44.58	Tr200	56.01	441.86	443.87	443.87	444.18	0.020140	2.47	22.71	38.58	1.03
B.06	B.06	44.58	Tr050	37.34	441.86	443.67	443.67	443.95	0.020639	2.36	15.80	29.03	1.02
B.06	B.06	44.58	Tr100	46.31	441.86	443.77	443.77	444.07	0.020725	2.42	19.13	34.08	1.03
B.06	B.06	44.58	Tr500	69.58	441.86	443.97	443.97	444.31	0.019971	2.59	26.92	43.28	1.04
B.06	B.06	34.58	Tr200	56.01	442.05	443.22	443.40	443.88	0.036307	3.58	15.65	23.77	1.41
B.06	B.06	34.58	Tr050	37.34	442.05	442.99	443.18	443.62	0.045784	3.52	10.61	19.69	1.53
B.06	B.06	34.58	Tr100	46.31	442.05	443.11	443.30	443.75	0.041037	3.57	12.97	21.70	1.47
B.06	B.06	34.58	Tr500	69.58	442.05	443.36	443.53	444.04	0.031376	3.63	19.17	26.22	1.34
B.06	B.06	14.58	Tr200	56.01	441.67	443.41	443.15	443.62	0.007780	2.07	27.07	29.41	0.69
B.06	B.06	14.58	Tr050	37.34	441.67	443.16	442.91	443.33	0.007543	1.85	20.21	25.45	0.66
B.06	B.06	14.58	Tr100	46.31	441.67	443.28	443.03	443.48	0.007745	1.97	23.54	27.50	0.68
B.06	B.06	14.58	Tr500	69.58	441.67	443.56	443.29	443.80	0.007635	2.20	31.66	31.53	0.69
B.06	B.06	4.58	Tr200	56.01	441.63	443.35		443.54	0.006342	1.94	28.84	29.28	0.62
B.06	B.06	4.58	Tr050	37.34	441.63	443.10		443.25	0.006323	1.71	21.86	26.89	0.61
B.06	B.06	4.58	Tr100	46.31	441.63	443.23		443.40	0.006337	1.83	25.31	28.10	0.62
B.06	B.06	4.58	Tr500	69.58	441.63	443.50		443.72	0.006331	2.09	33.36	30.72	0.64
B.06	B.06	0	Tr200	56.01	441.58	443.34	442.99	443.51	0.005614	1.84	30.37	30.31	0.59
B.06	B.06	0	Tr050	37.34	441.58	443.09	442.79	443.22	0.005611	1.62	23.02	27.93	0.57
B.06	B.06	0	Tr100	46.31	441.58	443.21	442.89	443.37	0.005613	1.74	26.65	29.13	0.58
B.06	B.06	0	Tr500	69.58	441.58	443.49	443.12	443.69	0.005615	1.98	35.09	31.75	0.60
B.05	B.05	399.48	Tr200	1.48	488.23	488.36	488.43	488.61	0.178392	2.20	0.67	7.02	2.27
B.05	B.05	399.48	Tr050	0.96	488.23	488.34	488.39	488.53	0.178193	1.92	0.50	6.38	2.20
B.05	B.05	399.48	Tr100	1.21	488.23	488.35	488.41	488.57	0.178252	2.07	0.58	6.71	2.24
B.05	B.05	399.48	Tr500	1.84	488.23	488.38	488.45	488.65	0.178338	2.31	0.80	7.76	2.30
B.05	B.05	389.48	Tr200	1.48	486.34	486.53	486.60	486.80	0.183506	2.30	0.64	6.42	2.32
B.05	B.05	389.48	Tr050	0.96	486.34	486.50	486.56	486.71	0.184602	2.03	0.47	5.70	2.26
B.05	B.05	389.48	Tr100	1.21	486.34	486.51	486.58	486.75	0.183923	2.17	0.56	6.07	2.29
B.05	B.05	389.48	Tr500	1.84	486.34	486.54	486.63	486.85	0.181286	2.44	0.75	6.85	2.35
B.05	B.05	379.48	Tr200	1.48	484.44	484.62	484.71	484.94	0.188095	2.52	0.59	5.23	2.40
B.05	B.05	379.48	Tr050	0.96	484.44	484.59	484.66	484.84	0.188956	2.22	0.43	4.68	2.33
B.05	B.05	379.48	Tr100	1.21	484.44	484.60	484.68	484.89	0.187676	2.37	0.51	4.97	2.36
B.05	B.05	379.48	Tr500	1.84	484.44	484.64	484.74	485.00	0.187046	2.68	0.69	5.57	2.43
B.05	B.05	369.48	Tr200	1.48	483.83	483.98	484.00	484.05	0.045324	1.11	1.34	14.06	1.15
B.05	B.05	369.48	Tr050	0.96	483.83	483.96	483.97	484.01	0.041582	0.96	1.00	12.36	1.07
B.05	B.05	369.48	Tr100	1.21	483.83	483.97	483.98	484.03	0.043506	1.03	1.17	13.24	1.11
B.05	B.05	369.48	Tr500	1.84	483.83	484.00	484.01	484.07	0.047560	1.19	1.54	15.02	1.19
B.05	B.05	359.48	Tr200	1.48	481.83	481.91	482.02	482.69	1.248137	3.92	0.38	7.14	5.45
B.05	B.05	359.48	Tr050	0.96	481.83	481.89	481.97	482.66	2.024436	3.88	0.25	6.86	6.52
B.05	B.05	359.48	Tr100	1.21	481.83	481.90	482.00	482.67	1.549789	3.90	0.31	7.00	5.91
B.05	B.05	359.48	Tr500	1.84	481.83	481.92	482.04	482.72	0.991050	3.95	0.47	7.33	5.01
B.05	B.05	349.48	Tr200	1.48	480.27	480.43	480.46	480.54	0.075610	1.47	1.01	10.24	1.49
B.05	B.05	349.48	Tr050	0.96	480.27	480.41	480.43	480.49	0.068866	1.23	0.78	9.65	1.38
B.05	B.05	349.48	Tr100	1.21	480.27	480.42	480.46	480.52	0.072098	1.35	0.90	9.95	1.43
B.05	B.05	349.48	Tr500	1.84	480.27	480.45	480.49	480.58	0.079926	1.61	1.15	10.58	1.56
B.05	B.05	339.48	Tr200	1.48	478.93	479.07	479.14	479.28	0.248552	2.00	0.74	11.45	2.52
B.05	B.05	339.48	Tr050	0.96	478.93	479.04	479.10	479.28	0.251011	2.18	0.44	6.04	2.58
B.05	B.05	339.48	Tr100	1.21	478.93	479.06	479.11	479.28	0.246396	2.11	0.57	8.22	2.54
B.05	B.05	339.48	Tr500	1.84	478.93	479.09	479.15	479.30	0.229458	2.07	0.89	12.38	2.46
B.05	B.05	329.48	Tr200	1.48	477.91	478.05	478.07	478.13	0.063173	1.20	1.24	14.88	1.33
B.05	B.05	329.48	Tr050	0.96	477.91	478.03	478.04	478.09	0.064816	1.03	0.93	14.34	1.29
B.05	B.05	329.48	Tr100	1.21	477.91	478.04	478.06	478.11	0.064698	1.12	1.08	14.60	1.32
B.05	B.05	329.48	Tr500	1.84	477.91	478.06	478.09	478.15	0.065677	1.31	1.40	15.17	1.38
B.05	B.05	319.48	Tr200	1.48	477.12	477.25	477.28	477.34	0.098983	1.36	1.09	15.22	1.62
B.05	B.05	319.48	Tr050	0.96	477.12	477.23	477.24	477.30	0.097044	1.16	0.82	14.25	1.55
B.05	B.05	319.48	Tr100	1.21	477.12	477.24	477.26	477.32	0.096722	1.26	0.96	14.76	1.57
B.05	B.05	319.48	Tr500	1.84	477.12	477.26	477.29	477.36	0.094944	1.44	1.28	15.88	1.62
B.05	B.05	315.59	Tr200	1.48	476.14	476.40	476.54	476.87	0.125370	3.04	0.49	2.27	2.09

River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
B.05	B.05	315.59	Tr050	0.96	476.14	476.32	476.45	476.77	0.172221	2.94	0.33	2.05	2.35
B.05	B.05	315.59	Tr100	1.21	476.14	476.36	476.49	476.82	0.144186	2.99	0.40	2.16	2.20
B.05	B.05	315.59	Tr500	1.84	476.14	476.45	476.59	476.93	0.108309	3.09	0.60	2.41	1.98
B.05	B.05	305.59	Tr200	1.48	475.10	475.38	475.50	475.76	0.093948	2.74	0.54	2.35	1.83
B.05	B.05	305.59	Tr050	0.96	475.10	475.33	475.41	475.59	0.079753	2.27	0.42	2.19	1.65
B.05	B.05	305.59	Tr100	1.21	475.10	475.36	475.46	475.68	0.087054	2.51	0.48	2.27	1.74
B.05	B.05	305.59	Tr500	1.84	475.10	475.41	475.55	475.87	0.100616	3.00	0.61	2.44	1.91
B.05	B.05	295.59	Tr200	1.48	474.05	474.31	474.44	474.73	0.113155	2.87	0.52	2.44	2.00
B.05	B.05	295.59	Tr050	0.96	474.05	474.25	474.35	474.59	0.125491	2.60	0.37	2.23	2.03
B.05	B.05	295.59	Tr100	1.21	474.05	474.28	474.39	474.66	0.118102	2.73	0.44	2.34	2.01
B.05	B.05	295.59	Tr500	1.84	474.05	474.35	474.49	474.82	0.111116	3.06	0.60	2.55	2.01
B.05	B.05	285.59	Tr200	1.48	473.00	473.28	473.40	473.67	0.097793	2.79	0.53	2.32	1.86
B.05	B.05	285.59	Tr050	0.96	473.00	473.22	473.31	473.51	0.091642	2.38	0.40	2.15	1.76
B.05	B.05	285.59	Tr100	1.21	473.00	473.25	473.35	473.59	0.095107	2.59	0.47	2.24	1.81
B.05	B.05	285.59	Tr500	1.84	473.00	473.31	473.44	473.77	0.098599	2.99	0.62	2.43	1.90
B.05	B.05	275.59	Tr200	1.48	471.96	472.23	472.35	472.65	0.107090	2.87	0.52	2.32	1.94
B.05	B.05	275.59	Tr050	0.96	471.96	472.17	472.27	472.50	0.111367	2.54	0.38	2.13	1.92
B.05	B.05	275.59	Tr100	1.21	471.96	472.20	472.32	472.57	0.108540	2.71	0.45	2.22	1.93
B.05	B.05	275.59	Tr500	1.84	471.96	472.27	472.37	472.74	0.106391	3.06	0.60	2.42	1.97
B.05	B.05	265.59	Tr200	1.48	470.91	471.18	471.31	471.59	0.103290	2.84	0.52	2.32	1.91
B.05	B.05	265.59	Tr050	0.96	470.91	471.12	471.22	471.43	0.100861	2.46	0.39	2.14	1.84
B.05	B.05	265.59	Tr100	1.21	470.91	471.15	471.27	471.51	0.101676	2.65	0.46	2.23	1.87
B.05	B.05	265.59	Tr500	1.84	470.91	471.22	471.36	471.69	0.103821	3.04	0.61	2.43	1.94
B.05	B.05	255.59	Tr200	1.48	469.86	470.13	470.25	470.55	0.106149	2.87	0.52	2.31	1.94
B.05	B.05	255.59	Tr050	0.96	469.86	470.07	470.17	470.39	0.107160	2.51	0.38	2.13	1.89
B.05	B.05	255.59	Tr100	1.21	469.86	470.10	470.22	470.47	0.106451	2.69	0.45	2.22	1.91
B.05	B.05	255.59	Tr500	1.84	469.86	470.17	470.31	470.64	0.104090	3.04	0.60	2.42	1.94
B.05	B.05	252.75	Tr200	1.48	469.57	470.19	469.97	470.24	0.005184	0.98	1.51	3.36	0.47
B.05	B.05	252.75	Tr050	0.96	469.57	470.02	469.88	470.07	0.007045	0.97	0.99	2.86	0.53
B.05	B.05	252.75	Tr100	1.21	469.57	470.11	469.93	470.15	0.005997	0.98	1.24	3.11	0.50
B.05	B.05	252.75	Tr500	1.84	469.57	470.29	470.03	470.34	0.004395	0.98	1.88	3.68	0.44
B.05	B.05	250		Culvert									
B.05	B.05	207.77	Tr200	1.48	466.94	467.14	467.34	467.99	0.297058	4.07	0.36	2.10	3.13
B.05	B.05	207.77	Tr050	0.96	466.94	467.09	467.25	467.76	0.323188	3.63	0.26	1.96	3.15
B.05	B.05	207.77	Tr100	1.21	466.94	467.12	467.29	467.89	0.314953	3.89	0.31	2.03	3.17
B.05	B.05	207.77	Tr500	1.84	466.94	467.17	467.38	468.12	0.287200	4.32	0.43	2.19	3.12
B.05	B.05	195.59	Tr200	1.48	465.64	465.94	466.04	466.26	0.071410	2.50	0.59	2.41	1.61
B.05	B.05	195.59	Tr050	0.96	465.64	465.88	465.95	466.11	0.065595	2.12	0.45	2.23	1.50
B.05	B.05	195.59	Tr100	1.21	465.64	465.91	466.00	466.19	0.068347	2.31	0.52	2.32	1.55
B.05	B.05	195.59	Tr500	1.84	465.64	465.98	466.09	466.35	0.074579	2.71	0.68	2.51	1.66
B.05	B.05	185.59	Tr200	1.48	464.57	464.83	464.97	465.30	0.129800	3.07	0.48	2.28	2.13
B.05	B.05	185.59	Tr050	0.96	464.57	464.76	464.88	465.16	0.146044	2.78	0.35	2.09	2.18
B.05	B.05	185.59	Tr100	1.21	464.57	464.79	464.93	465.23	0.137040	2.93	0.41	2.18	2.15
B.05	B.05	185.59	Tr500	1.84	464.57	464.86	465.02	465.39	0.123588	3.22	0.57	2.39	2.11
B.05	B.05	175.59	Tr200	1.48	463.49	463.79	463.90	464.10	0.102406	2.49	0.59	3.23	1.86
B.05	B.05	175.59	Tr050	0.96	463.49	463.71	463.82	464.00	0.089412	2.36	0.41	2.16	1.74
B.05	B.05	175.59	Tr100	1.21	463.49	463.74	463.87	464.08	0.093314	2.58	0.47	2.24	1.80
B.05	B.05	175.59	Tr500	1.84	463.49	463.81	463.95	464.18	0.111410	2.68	0.69	3.57	1.96
B.05	B.05	165.59	Tr200	1.48	462.42	462.65	462.71	462.85	0.146962	2.00	0.74	7.67	2.06
B.05	B.05	165.59	Tr050	0.96	462.42	462.61	462.67	462.80	0.161776	1.93	0.50	5.81	2.11
B.05	B.05	165.59	Tr100	1.21	462.42	462.63	462.69	462.83	0.162229	2.01	0.60	6.69	2.14
B.05	B.05	165.59	Tr500	1.84	462.42	462.66	462.74	462.88	0.142287	2.06	0.89	8.64	2.05
B.05	B.05	151.38	Tr200	1.48	460.43	460.60	460.68	460.86	0.131702	2.25	0.66	5.30	2.04
B.05	B.05	151.38	Tr050	0.96	460.43	460.57	460.64	460.76	0.127166	1.95	0.49	4.83	1.94
B.05	B.05	151.38	Tr100	1.21	460.43	460.59	460.65	460.81	0.125188	2.08	0.58	5.09	1.96
B.05	B.05	151.38	Tr500	1.84	460.43	460.62	460.71	460.92	0.132838	2.42	0.76	5.55	2.08
B.05	B.05	141.38	Tr200	1.48	459.67	459.87	459.89	459.96	0.060227	1.33	1.11	11.00	1.34
B.05	B.05	141.38	Tr050	0.96	459.67	459.84	459.86	459.91	0.057175	1.14	0.84	10.01	1.26
B.05	B.05	141.38	Tr100	1.21	459.67	459.85	459.87	459.93	0.059516	1.24	0.98	10.68	1.31
B.05	B.05	141.38	Tr500	1.84	459.67	459.88	459.91	459.99	0.062240	1.45	1.27	11.37	1.38
B.05	B.05	131.38	Tr200	1.48	458.90	459.19	459.23	459.34	0.062077	1.71	0.87	6.00	1.44
B.05	B.05	131.38	Tr050	0.96	458.90	459.14	459.18	459.27	0.070311	1.61	0.60	4.98	1.48
B.05	B.05	131.38	Tr100	1.21	458.90	459.17	459.22	459.31	0.066061	1.66	0.73	5.50	1.46
B.05	B.05	131.38	Tr500	1.84	458.90	459.22	459.26	459.38	0.058846	1.77	1.04	6.58	1.42
B.05	B.05	121.38	Tr200	1.48	458.00	458.11	458.18	458.35	0.173942	2.19	0.68	7.02	2.25
B.05	B.05	121.38	Tr050	0.96	458.00	458.09	458.13	458.25	0.158006	1.82	0.53	6.74	2.07
B.05	B.05	121.38	Tr100	1.21	458.00	458.10	458.16	458.30	0.165957	2.01	0.60	6.88	2.16
B.05	B.05	121.38	Tr500	1.84	458.00	458.12	458.20	458.41	0.177923	2.38	0.77	7.19	2.32
B.05	B.05	111.38	Tr200	1.48	457.20	457.47	457.48	457.56	0.041145	1.33	1.12	8.33	1.16

River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
B.05	B.05	111.38	Tr050	0.96	457.20	457.43	457.44	457.50	0.041238	1.19	0.81	7.10	1.13
B.05	B.05	111.38	Tr100	1.21	457.20	457.45	457.46	457.53	0.041030	1.26	0.96	7.74	1.14
B.05	B.05	111.38	Tr500	1.84	457.20	457.49	457.51	457.59	0.041957	1.41	1.30	9.00	1.18
B.05	B.05	101.38	Tr200	1.48	456.00	456.11	456.22	456.60	0.353114	3.10	0.48	4.99	3.20
B.05	B.05	101.38	Tr050	0.96	456.00	456.08	456.17	456.49	0.440729	2.85	0.34	4.70	3.41
B.05	B.05	101.38	Tr100	1.21	456.00	456.09	456.20	456.55	0.392587	2.99	0.40	4.84	3.30
B.05	B.05	101.38	Tr500	1.84	456.00	456.13	456.25	456.65	0.305903	3.19	0.58	5.19	3.05
B.05	B.05	91.38	Tr200	1.48	456.00	456.12	456.12	456.17	0.024864	0.94	1.58	13.59	0.88
B.05	B.05	91.38	Tr050	0.96	456.00	456.08	456.08	456.13	0.040394	0.92	1.04	13.14	1.05
B.05	B.05	91.38	Tr100	1.21	456.00	456.10	456.10	456.15	0.036891	0.98	1.23	13.30	1.03
B.05	B.05	91.38	Tr500	1.84	456.00	456.13	456.13	456.19	0.034909	1.13	1.63	13.63	1.05
B.05	B.05	81.38	Tr200	1.48	454.67	454.78	454.90	455.41	0.637935	3.51	0.42	5.70	4.12
B.05	B.05	81.38	Tr050	0.96	454.67	454.77	454.85	455.14	0.446595	2.68	0.36	5.56	3.37
B.05	B.05	81.38	Tr100	1.21	454.67	454.78	454.87	455.21	0.447814	2.92	0.41	5.69	3.45
B.05	B.05	81.38	Tr500	1.84	454.67	454.81	454.93	455.32	0.370333	3.18	0.58	6.03	3.28
B.05	B.05	71.38	Tr200	1.48	454.00	454.12	454.13	454.19	0.041512	1.18	1.26	11.26	1.13
B.05	B.05	71.38	Tr050	0.96	454.00	454.10	454.11	454.14	0.036999	0.97	0.99	10.98	1.03
B.05	B.05	71.38	Tr100	1.21	454.00	454.11	454.11	454.17	0.039473	1.08	1.12	11.12	1.08
B.05	B.05	71.38	Tr500	1.84	454.00	454.13	454.15	454.22	0.044000	1.30	1.41	11.42	1.18
B.05	B.05	61.38	Tr200	1.48	452.87	453.08	453.16	453.38	0.209914	2.44	0.61	6.17	2.48
B.05	B.05	61.38	Tr050	0.96	452.87	453.04	453.11	453.33	0.270092	2.37	0.40	5.17	2.71
B.05	B.05	61.38	Tr100	1.21	452.87	453.06	453.14	453.35	0.230429	2.39	0.51	5.70	2.56
B.05	B.05	61.38	Tr500	1.84	452.87	453.10	453.19	453.40	0.181109	2.45	0.75	6.77	2.35
B.05	B.05	51.38	Tr200	1.48	452.00	452.24	452.17	452.27	0.006573	0.71	2.07	9.87	0.50
B.05	B.05	51.38	Tr050	0.96	452.00	452.20	452.11	452.22	0.005187	0.57	1.69	9.45	0.43
B.05	B.05	51.38	Tr100	1.21	452.00	452.22	452.13	452.24	0.006191	0.65	1.85	9.63	0.48
B.05	B.05	51.38	Tr500	1.84	452.00	452.27	452.18	452.30	0.007126	0.79	2.33	10.15	0.53
B.05	B.05	41.38	Tr200	1.48	451.92	452.09	452.09	452.14	0.038108	1.03	1.43	14.65	1.06
B.05	B.05	41.38	Tr050	0.96	451.92	452.06	452.06	452.10	0.042774	0.91	1.06	14.46	1.07
B.05	B.05	41.38	Tr100	1.21	451.92	452.08	452.08	452.12	0.034760	0.93	1.30	14.58	0.99
B.05	B.05	41.38	Tr500	1.84	451.92	452.11	452.11	452.17	0.032242	1.07	1.72	14.80	1.00
B.05	B.05	31.38	Tr200	1.48	450.72	450.85	450.94	451.19	0.457792	2.56	0.58	9.83	3.37
B.05	B.05	31.38	Tr050	0.96	450.72	450.83	450.90	451.11	0.405158	2.31	0.42	7.50	3.14
B.05	B.05	31.38	Tr100	1.21	450.72	450.84	450.90	451.20	0.518173	2.68	0.45	7.84	3.57
B.05	B.05	31.38	Tr500	1.84	450.72	450.86	450.94	451.29	0.553600	2.91	0.63	10.19	3.74
B.05	B.05	22.67	Tr200	1.48	449.36	449.56	449.61	449.68	0.084150	1.54	0.96	9.74	1.57
B.05	B.05	22.67	Tr050	0.96	449.36	449.53	449.56	449.63	0.087072	1.41	0.68	8.09	1.56
B.05	B.05	22.67	Tr100	1.21	449.36	449.55	449.58	449.66	0.082359	1.46	0.83	9.01	1.54
B.05	B.05	22.67	Tr500	1.84	449.36	449.58	449.63	449.71	0.082064	1.61	1.14	10.69	1.57
B.05	B.05	11.37	Tr200	1.48	448.51	448.66	448.68	448.75	0.078916	1.31	1.13	13.90	1.47
B.05	B.05	11.37	Tr050	0.96	448.51	448.64	448.65	448.70	0.074551	1.12	0.86	12.88	1.39
B.05	B.05	11.37	Tr100	1.21	448.51	448.65	448.67	448.73	0.079003	1.23	0.98	13.36	1.45
B.05	B.05	11.37	Tr500	1.84	448.51	448.67	448.70	448.78	0.082166	1.43	1.29	14.47	1.53
B.05	B.05	1.22	Tr200	1.48	446.95	447.40	447.22	447.40	0.001487	0.31	4.84	27.04	0.23
B.05	B.05	1.22	Tr050	0.96	446.95	447.40	447.18	447.40	0.000626	0.20	4.84	27.04	0.15
B.05	B.05	1.22	Tr100	1.21	446.95	447.40	447.20	447.40	0.000994	0.25	4.84	27.04	0.19
B.05	B.05	1.22	Tr500	1.84	446.95	447.40	447.24	447.41	0.002298	0.38	4.84	27.04	0.29
B.04	B.04	629.83	Tr200	1.35	498.66	498.81	498.84	498.90	0.088089	1.30	1.04	14.12	1.53
B.04	B.04	629.83	Tr050	0.89	498.66	498.79	498.81	498.86	0.088086	1.17	0.76	12.19	1.49
B.04	B.04	629.83	Tr100	1.12	498.66	498.80	498.83	498.88	0.088131	1.24	0.91	13.33	1.51
B.04	B.04	629.83	Tr500	1.67	498.66	498.82	498.85	498.92	0.088014	1.41	1.19	14.38	1.56
B.04	B.04	620.83	Tr200	1.35	498.00	498.09	498.12	498.18	0.075034	1.30	1.04	12.54	1.44
B.04	B.04	620.83	Tr050	0.89	498.00	498.07	498.09	498.13	0.073945	1.11	0.80	12.09	1.38
B.04	B.04	620.83	Tr100	1.12	498.00	498.08	498.10	498.16	0.072735	1.20	0.93	12.34	1.40
B.04	B.04	620.83	Tr500	1.67	498.00	498.10	498.14	498.20	0.073252	1.39	1.20	12.84	1.45
B.04	B.04	610.83	Tr200	1.35	497.36	497.53	497.54	497.59	0.046251	1.06	1.27	14.54	1.14
B.04	B.04	610.83	Tr050	0.89	497.36	497.51	497.52	497.55	0.046535	0.95	0.93	12.52	1.12
B.04	B.04	610.83	Tr100	1.12	497.36	497.52	497.52	497.57	0.047163	1.02	1.10	13.55	1.14
B.04	B.04	610.83	Tr500	1.67	497.36	497.54	497.56	497.61	0.048306	1.14	1.47	15.57	1.18
B.04	B.04	600.82	Tr200	1.35	496.54	496.68	496.73	496.84	0.139585	1.75	0.77	9.52	1.96
B.04	B.04	600.82	Tr050	0.89	496.54	496.66	496.70	496.79	0.146555	1.60	0.56	8.18	1.95
B.04	B.04	600.82	Tr100	1.12	496.54	496.67	496.72	496.81	0.136464	1.65	0.68	8.96	1.92
B.04	B.04	600.82	Tr500	1.67	496.54	496.70	496.75	496.86	0.129063	1.80	0.93	10.40	1.92
B.04	B.04	590.82	Tr200	1.35	495.85	495.99	495.99	496.04	0.048892	1.00	1.35	17.59	1.15
B.04	B.04	590.82	Tr050	0.89	495.85	495.96	495.97	496.00	0.046527	0.89	1.00	14.99	1.10
B.04	B.04	590.82	Tr100	1.12	495.85	495.98	495.98	496.02	0.048623	0.96	1.17	16.15	1.14
B.04	B.04	590.82	Tr500	1.67	495.85	496.00	496.00	496.06	0.052612	1.09	1.54	18.59	1.21
B.04	B.04	580.83	Tr200	1.35	494.52	494.64	494.70	494.91	0.468601	2.27	0.60	12.33	3.30
B.04	B.04	580.83	Tr050	0.89	494.52	494.63	494.68	494.87	0.535308	2.20	0.40	9.64	3.44
B.04	B.04	580.83	Tr100	1.12	494.52	494.64	494.69	494.88	0.470256	2.20	0.51	11.09	3.28

River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
B.04	B.04	580.83	Tr500	1.67	494.52	494.65	494.72	494.92	0.379360	2.28	0.73	12.82	3.05
B.04	B.04	570.83	Tr200	1.35	493.13	493.23	493.24	493.31	0.075883	1.25	1.08	14.10	1.43
B.04	B.04	570.83	Tr050	0.89	493.13	493.21	493.23	493.27	0.072811	1.07	0.84	13.31	1.36
B.04	B.04	570.83	Tr100	1.12	493.13	493.22	493.23	493.29	0.075469	1.17	0.96	13.71	1.41
B.04	B.04	570.83	Tr500	1.67	493.13	493.24	493.27	493.33	0.082431	1.37	1.22	14.50	1.52
B.04	B.04	560.83	Tr200	1.35	491.41	491.56	491.64	491.89	0.344054	2.51	0.54	7.55	3.01
B.04	B.04	560.83	Tr050	0.89	491.41	491.54	491.61	491.83	0.382171	2.37	0.37	6.22	3.09
B.04	B.04	560.83	Tr100	1.12	491.41	491.55	491.63	491.85	0.350864	2.42	0.46	6.97	3.01
B.04	B.04	560.83	Tr500	1.67	491.41	491.58	491.66	491.91	0.287211	2.53	0.66	8.02	2.82
B.04	B.04	550.83	Tr200	1.35	489.79	489.87	489.90	489.98	0.114406	1.42	0.95	13.85	1.73
B.04	B.04	550.83	Tr050	0.89	489.79	489.86	489.88	489.93	0.106910	1.19	0.75	13.46	1.61
B.04	B.04	550.83	Tr100	1.12	489.79	489.87	489.89	489.96	0.112294	1.32	0.85	13.66	1.68
B.04	B.04	550.83	Tr500	1.67	489.79	489.88	489.93	490.01	0.126885	1.58	1.05	14.03	1.85
B.04	B.04	540.83	Tr200	1.35	488.64	488.76	488.81	488.90	0.100244	1.67	0.81	8.30	1.71
B.04	B.04	540.83	Tr050	0.89	488.64	488.74	488.76	488.85	0.110187	1.50	0.59	7.71	1.73
B.04	B.04	540.83	Tr100	1.12	488.64	488.75	488.79	488.88	0.102965	1.59	0.71	8.03	1.71
B.04	B.04	540.83	Tr500	1.67	488.64	488.78	488.83	488.93	0.092451	1.74	0.96	8.69	1.68
B.04	B.04	530.83	Tr200	1.35	487.84	487.97	487.99	488.04	0.072277	1.21	1.12	14.71	1.40
B.04	B.04	530.83	Tr050	0.89	487.84	487.95	487.97	488.00	0.064661	1.04	0.86	13.05	1.29
B.04	B.04	530.83	Tr100	1.12	487.84	487.96	487.97	488.02	0.070184	1.13	0.99	14.04	1.36
B.04	B.04	530.83	Tr500	1.67	487.84	487.98	488.00	488.07	0.079075	1.33	1.26	15.39	1.48
B.04	B.04	520.83	Tr200	1.35	487.26	487.42	487.43	487.47	0.046131	1.05	1.28	14.76	1.14
B.04	B.04	520.83	Tr050	0.89	487.26	487.38	487.39	487.45	0.087898	1.15	0.77	12.67	1.49
B.04	B.04	520.83	Tr100	1.12	487.26	487.39	487.41	487.47	0.089663	1.22	0.92	13.96	1.52
B.04	B.04	520.83	Tr500	1.67	487.26	487.43	487.44	487.49	0.043551	1.11	1.50	15.30	1.13
B.04	B.04	510.83	Tr200	1.35	486.00	486.13	486.21	486.46	0.339028	2.53	0.53	7.37	3.00
B.04	B.04	510.83	Tr050	0.89	486.00	486.13	486.17	486.28	0.162182	1.73	0.51	7.19	2.07
B.04	B.04	510.83	Tr100	1.12	486.00	486.14	486.19	486.30	0.156879	1.79	0.63	8.15	2.06
B.04	B.04	510.83	Tr500	1.67	486.00	486.14	486.23	486.50	0.349637	2.67	0.63	8.15	3.08
B.04	B.04	500.83	Tr200	1.35	484.92	485.11	485.13	485.20	0.059598	1.37	0.99	9.30	1.34
B.04	B.04	500.83	Tr050	0.89	484.92	485.07	485.10	485.16	0.079445	1.31	0.68	8.51	1.48
B.04	B.04	500.83	Tr100	1.12	484.92	485.09	485.12	485.19	0.081957	1.43	0.78	8.79	1.53
B.04	B.04	500.83	Tr500	1.67	484.92	485.12	485.15	485.23	0.060305	1.47	1.13	9.66	1.37
B.04	B.04	490.83	Tr200	1.35	484.00	484.09	484.14	484.26	0.164683	1.85	0.73	9.34	2.12
B.04	B.04	490.83	Tr050	0.89	484.00	484.08	484.12	484.18	0.121218	1.45	0.61	9.02	1.78
B.04	B.04	490.83	Tr100	1.12	484.00	484.09	484.14	484.21	0.117385	1.55	0.72	9.32	1.78
B.04	B.04	490.83	Tr500	1.67	484.00	484.10	484.16	484.30	0.159277	1.97	0.85	9.67	2.12
B.04	B.04	480.83	Tr200	1.35	483.77	483.93	483.93	483.97	0.037511	0.89	1.52	19.50	1.01
B.04	B.04	480.83	Tr050	0.89	483.77	483.90	483.90	483.94	0.040233	0.82	1.09	16.46	1.02
B.04	B.04	480.83	Tr100	1.12	483.77	483.91	483.91	483.95	0.048451	0.93	1.20	17.33	1.13
B.04	B.04	480.83	Tr500	1.67	483.77	483.94	483.94	483.98	0.041185	0.97	1.73	20.76	1.07
B.04	B.04	470.83	Tr200	1.35	482.81	482.91	482.96	483.11	0.324471	2.00	0.68	12.86	2.78
B.04	B.04	470.83	Tr050	0.89	482.81	482.90	482.95	483.06	0.311291	1.78	0.50	10.98	2.66
B.04	B.04	470.83	Tr100	1.12	482.81	482.91	482.94	483.05	0.217828	1.64	0.68	12.88	2.28
B.04	B.04	470.83	Tr500	1.67	482.81	482.92	482.98	483.13	0.251341	2.01	0.83	13.19	2.53
B.04	B.04	460.83	Tr200	1.35	482.00	482.19	482.12	482.21	0.007219	0.63	2.14	13.14	0.50
B.04	B.04	460.83	Tr050	0.89	482.00	482.15	482.09	482.16	0.007042	0.54	1.64	12.52	0.48
B.04	B.04	460.83	Tr100	1.12	482.00	482.17	482.10	482.19	0.007225	0.59	1.89	12.83	0.49
B.04	B.04	460.83	Tr500	1.67	482.00	482.21	482.15	482.23	0.007707	0.69	2.40	13.47	0.53
B.04	B.04	450.83	Tr200	1.35	481.90	482.03	482.03	482.07	0.038293	0.90	1.50	19.12	1.02
B.04	B.04	450.83	Tr050	0.89	481.90	482.02	482.02	482.04	0.031861	0.72	1.23	18.89	0.90
B.04	B.04	450.83	Tr100	1.12	481.90	482.03	482.03	482.06	0.030495	0.78	1.44	19.06	0.91
B.04	B.04	450.83	Tr500	1.67	481.90	482.04	482.04	482.09	0.035029	0.95	1.76	19.34	1.00
B.04	B.04	440.83	Tr200	1.35	480.35	480.55	480.73	481.23	0.233356	3.64	0.37	2.12	2.78
B.04	B.04	440.83	Tr050	0.89	480.35	480.49	480.65	481.20	0.383092	3.74	0.24	1.92	3.39
B.04	B.04	440.83	Tr100	1.12	480.35	480.52	480.69	481.27	0.328379	3.84	0.29	2.00	3.21
B.04	B.04	440.83	Tr500	1.67	480.35	480.59	480.78	481.31	0.211288	3.77	0.44	2.22	2.69
B.04	B.04	431.04	Tr200	1.35	478.73	479.31	479.11	479.36	0.005575	0.98	1.37	3.23	0.48
B.04	B.04	431.04	Tr050	0.89	478.73	479.16	479.03	479.21	0.007447	0.97	0.92	2.78	0.54
B.04	B.04	431.04	Tr100	1.12	478.73	479.24	479.07	479.29	0.006366	0.98	1.14	3.01	0.51
B.04	B.04	431.04	Tr500	1.67	478.73	479.41	479.16	479.45	0.004762	0.98	1.70	3.52	0.45
B.04	B.04	420		Culvert									
B.04	B.04	373.9	Tr200	1.35	475.87	476.07	476.25	476.79	0.255223	3.75	0.36	2.10	2.90
B.04	B.04	373.9	Tr050	0.89	475.87	476.02	476.17	476.60	0.277266	3.36	0.26	1.96	2.92
B.04	B.04	373.9	Tr100	1.12	475.87	476.05	476.21	476.71	0.269742	3.60	0.31	2.03	2.93
B.04	B.04	373.9	Tr500	1.67	475.87	476.10	476.30	476.90	0.243288	3.96	0.42	2.18	2.87
B.04	B.04	370.83	Tr200	1.35	475.72	476.01	476.10	476.30	0.068191	2.39	0.57	2.38	1.56
B.04	B.04	370.83	Tr050	0.89	475.72	475.96	476.02	476.16	0.055682	1.96	0.45	2.23	1.38
B.04	B.04	370.83	Tr100	1.12	475.72	475.99	476.06	476.24	0.064037	2.21	0.51	2.30	1.50



River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
B.04	B.04	370.83	Tr500	1.67	475.72	476.04	476.14	476.39	0.073593	2.62	0.64	2.47	1.64
B.04	B.04	360.83	Tr200	1.35	475.22	475.56	475.60	475.76	0.040744	2.00	0.68	2.51	1.23
B.04	B.04	360.83	Tr050	0.89	475.22	475.48	475.52	475.65	0.045868	1.83	0.49	2.27	1.26
B.04	B.04	360.83	Tr100	1.12	475.22	475.52	475.57	475.71	0.041776	1.90	0.59	2.41	1.23
B.04	B.04	360.83	Tr500	1.67	475.22	475.60	475.65	475.83	0.040039	2.11	0.79	2.64	1.24
B.04	B.04	350.83	Tr200	1.35	474.72	475.03	475.09	475.28	0.057273	2.25	0.60	2.42	1.44
B.04	B.04	350.83	Tr050	0.89	474.72	474.97	475.02	475.16	0.054048	1.94	0.46	2.24	1.37
B.04	B.04	350.83	Tr100	1.12	474.72	475.00	475.06	475.22	0.054323	2.09	0.54	2.34	1.39
B.04	B.04	350.83	Tr500	1.67	474.72	475.07	475.15	475.35	0.054051	2.35	0.71	2.55	1.42
B.04	B.04	340.83	Tr200	1.35	474.22	474.55	474.60	474.77	0.045515	2.08	0.65	2.48	1.29
B.04	B.04	340.83	Tr050	0.89	474.22	474.48	474.52	474.65	0.047119	1.85	0.48	2.27	1.28
B.04	B.04	340.83	Tr100	1.12	474.22	474.51	474.56	474.71	0.046309	1.97	0.57	2.38	1.29
B.04	B.04	340.83	Tr500	1.67	474.22	474.59	474.65	474.84	0.046634	2.23	0.75	2.60	1.33
B.04	B.04	333.09	Tr200	1.35	471.46	471.59	471.85	473.60	1.198713	6.29	0.21	1.87	5.93
B.04	B.04	333.09	Tr050	0.89	471.46	471.55	471.76	473.42	1.673586	6.05	0.15	1.76	6.69
B.04	B.04	333.09	Tr100	1.12	471.46	471.57	471.80	473.51	1.384424	6.17	0.18	1.82	6.24
B.04	B.04	333.09	Tr500	1.67	471.46	471.61	471.96	473.69	1.005963	6.38	0.26	1.95	5.55
B.04	B.04	323.02	Tr200	1.35	471.04	471.20	471.22	471.27	0.066191	1.21	1.12	13.69	1.35
B.04	B.04	323.02	Tr050	0.89	471.04	471.18	471.20	471.23	0.057000	0.99	0.90	13.15	1.22
B.04	B.04	323.02	Tr100	1.12	471.04	471.19	471.20	471.25	0.062030	1.11	1.01	13.43	1.29
B.04	B.04	323.02	Tr500	1.67	471.04	471.21	471.23	471.30	0.071407	1.33	1.25	14.01	1.42
B.04	B.04	313.02	Tr200	1.35	469.88	469.98	470.04	470.14	0.224564	1.78	0.76	13.01	2.36
B.04	B.04	313.02	Tr050	0.89	469.88	469.96	470.00	470.11	0.304323	1.69	0.53	12.25	2.61
B.04	B.04	313.02	Tr100	1.12	469.88	469.97	470.01	470.13	0.255387	1.74	0.65	12.68	2.46
B.04	B.04	313.02	Tr500	1.67	469.88	469.99	470.04	470.17	0.200327	1.85	0.90	13.45	2.28
B.04	B.04	303.02	Tr200	1.35	469.22	469.41	469.42	469.47	0.030386	1.08	1.39	16.12	0.98
B.04	B.04	303.02	Tr050	0.89	469.22	469.39	469.40	469.43	0.027291	0.90	1.06	14.20	0.90
B.04	B.04	303.02	Tr100	1.12	469.22	469.40	469.41	469.45	0.028751	0.99	1.23	15.24	0.94
B.04	B.04	303.02	Tr500	1.67	469.22	469.43	469.43	469.49	0.031701	1.18	1.60	17.15	1.02
B.04	B.04	293.02	Tr200	1.35	467.29	467.42	467.56	468.47	1.215072	4.52	0.30	4.48	5.59
B.04	B.04	293.02	Tr050	0.89	467.29	467.40	467.51	468.47	1.669729	4.59	0.19	3.61	6.33
B.04	B.04	293.02	Tr100	1.12	467.29	467.41	467.54	468.47	1.412325	4.57	0.25	4.06	5.93
B.04	B.04	293.02	Tr500	1.67	467.29	467.44	467.58	468.47	1.044244	4.51	0.37	5.00	5.28
B.04	B.04	283.02	Tr200	1.35	466.27	466.51	466.55	466.64	0.057634	1.54	0.88	7.09	1.36
B.04	B.04	283.02	Tr050	0.89	466.27	466.47	466.50	466.58	0.056154	1.41	0.63	5.46	1.32
B.04	B.04	283.02	Tr100	1.12	466.27	466.50	466.53	466.61	0.056976	1.48	0.76	6.08	1.34
B.04	B.04	283.02	Tr500	1.67	466.27	466.53	466.57	466.68	0.058587	1.68	1.01	8.01	1.40
B.04	B.04	273.02	Tr200	1.35	464.33	464.47	464.61	465.23	0.595446	3.86	0.35	3.91	4.11
B.04	B.04	273.02	Tr050	0.89	464.33	464.44	464.55	465.13	0.743808	3.69	0.24	3.41	4.42
B.04	B.04	273.02	Tr100	1.12	464.33	464.46	464.59	465.18	0.657799	3.78	0.30	3.67	4.25
B.04	B.04	273.02	Tr500	1.67	464.33	464.49	464.63	465.28	0.534225	3.94	0.42	4.21	3.97
B.04	B.04	253.02	Tr200	1.35	461.74	461.93	461.96	462.04	0.066668	1.49	0.91	8.17	1.42
B.04	B.04	253.02	Tr050	0.89	461.74	461.90	461.93	461.98	0.061453	1.25	0.71	7.79	1.32
B.04	B.04	253.02	Tr100	1.12	461.74	461.92	461.94	462.01	0.064285	1.37	0.81	8.00	1.38
B.04	B.04	253.02	Tr500	1.67	461.74	461.94	461.98	462.08	0.069761	1.63	1.03	8.37	1.48
B.04	B.04	243.02	Tr200	1.35	460.61	460.88	460.97	461.15	0.120301	2.28	0.59	4.33	1.98
B.04	B.04	243.02	Tr050	0.89	460.61	460.84	460.91	461.08	0.141301	2.19	0.41	3.60	2.08
B.04	B.04	243.02	Tr100	1.12	460.61	460.86	460.94	461.12	0.128139	2.23	0.50	3.99	2.01
B.04	B.04	243.02	Tr500	1.67	460.61	460.91	461.00	461.19	0.112413	2.35	0.71	4.75	1.94
B.04	B.04	233.02	Tr200	1.35	460.03	460.28	460.30	460.37	0.048963	1.33	1.02	8.61	1.23
B.04	B.04	233.02	Tr050	0.89	460.03	460.25	460.26	460.31	0.043168	1.11	0.80	8.14	1.12
B.04	B.04	233.02	Tr100	1.12	460.03	460.27	460.28	460.34	0.045476	1.21	0.92	8.46	1.17
B.04	B.04	233.02	Tr500	1.67	460.03	460.29	460.32	460.40	0.052505	1.46	1.14	8.81	1.30
B.04	B.04	225.63	Tr200	1.35	458.73	458.92	459.05	459.51	0.432427	3.41	0.40	4.18	3.53
B.04	B.04	225.63	Tr050	0.89	458.73	458.88	458.99	459.48	0.587815	3.42	0.26	3.44	3.97
B.04	B.04	225.63	Tr100	1.12	458.73	458.90	459.02	459.50	0.505797	3.43	0.33	3.85	3.75
B.04	B.04	225.63	Tr500	1.67	458.73	458.94	459.07	459.54	0.363955	3.43	0.49	4.47	3.32
B.04	B.04	217.07	Tr200	1.35	458.00	458.09	458.11	458.17	0.067917	1.25	1.08	12.82	1.38
B.04	B.04	217.07	Tr050	0.89	458.00	458.07	458.08	458.12	0.060621	1.03	0.87	12.68	1.26
B.04	B.04	217.07	Tr100	1.12	458.00	458.08	458.09	458.15	0.063969	1.14	0.98	12.75	1.32
B.04	B.04	217.07	Tr500	1.67	458.00	458.10	458.12	458.19	0.073632	1.39	1.20	12.89	1.46
B.04	B.04	203.02	Tr200	1.35	456.96	457.13	457.15	457.22	0.066656	1.36	0.99	10.23	1.40
B.04	B.04	203.02	Tr050	0.89	456.96	457.10	457.11	457.18	0.075268	1.23	0.73	9.57	1.42
B.04	B.04	203.02	Tr100	1.12	456.96	457.11	457.14	457.20	0.070831	1.30	0.86	9.91	1.41
B.04	B.04	203.02	Tr500	1.67	456.96	457.14	457.18	457.25	0.062151	1.43	1.17	10.65	1.38
B.04	B.04	193.02	Tr200	1.35	456.00	456.22	456.16	456.24	0.006211	0.62	2.32	16.54	0.47
B.04	B.04	193.02	Tr050	0.89	456.00	456.19	456.13	456.20	0.005842	0.53	1.78	15.53	0.44
B.04	B.04	193.02	Tr100	1.12	456.00	456.20	456.14	456.22	0.006285	0.59	2.03	16.28	0.47
B.04	B.04	193.02	Tr500	1.67	456.00	456.12	456.18	456.30	0.160135	1.86	0.90	11.16	2.10

River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
B.04	B.04	183.02	Tr200	1.35	456.00	456.06	456.06	456.10	0.053768	0.88	1.53	25.59	1.16
B.04	B.04	183.02	Tr050	0.89	456.00	456.05	456.05	456.08	0.042124	0.70	1.27	24.92	1.00
B.04	B.04	183.02	Tr100	1.12	456.00	456.06	456.06	456.09	0.043261	0.78	1.44	25.05	1.03
B.04	B.04	183.02	Tr500	1.67	456.00	456.09	456.09	456.12	0.026687	0.77	2.16	26.26	0.86
B.04	B.04	173.01	Tr200	1.35	455.45	455.59	455.59	455.63	0.041789	0.93	1.46	19.24	1.06
B.04	B.04	173.01	Tr050	0.89	455.45	455.57	455.58	455.60	0.053689	0.87	1.02	17.63	1.15
B.04	B.04	173.01	Tr100	1.12	455.45	455.58	455.58	455.62	0.052002	0.92	1.21	18.54	1.16
B.04	B.04	173.01	Tr500	1.67	455.45	455.58	455.61	455.67	0.093748	1.29	1.30	18.78	1.57
B.04	B.04	161.14	Tr200	1.35	454.89	455.06	455.07	455.12	0.044533	1.09	1.24	13.11	1.14
B.04	B.04	161.14	Tr050	0.89	454.89	455.04	455.04	455.08	0.037403	0.92	0.97	11.61	1.02
B.04	B.04	161.14	Tr100	1.12	454.89	455.05	455.06	455.10	0.037736	0.98	1.14	12.61	1.04
B.04	B.04	161.14	Tr500	1.67	454.89	455.10	455.10	455.14	0.025268	0.96	1.75	15.58	0.89
B.04	B.04	144.99	Tr200	1.35	453.77	453.90	453.94	454.03	0.112458	1.60	0.84	10.11	1.77
B.04	B.04	144.99	Tr050	0.89	453.77	453.87	453.92	454.00	0.151291	1.57	0.57	8.75	1.97
B.04	B.04	144.99	Tr100	1.12	453.77	453.88	453.93	454.02	0.145175	1.67	0.67	9.13	1.97
B.04	B.04	144.99	Tr500	1.67	453.77	453.89	453.96	454.16	0.262076	2.32	0.72	9.31	2.67
B.04	B.04	138.93	Tr200	1.35	453.06	453.19	453.22	453.31	0.127654	1.57	0.86	11.65	1.85
B.04	B.04	138.93	Tr050	0.89	453.06	453.17	453.20	453.26	0.097376	1.26	0.71	10.89	1.58
B.04	B.04	138.93	Tr100	1.12	453.06	453.18	453.21	453.28	0.100829	1.37	0.82	11.46	1.63
B.04	B.04	138.93	Tr500	1.67	453.06	453.21	453.24	453.32	0.077834	1.42	1.18	13.12	1.49
B.04	B.04	133.02	Tr200	1.35	452.00	452.13	452.20	452.38	0.191686	2.24	0.60	6.48	2.35
B.04	B.04	133.02	Tr050	0.89	452.00	452.09	452.16	452.34	0.268124	2.21	0.40	5.72	2.65
B.04	B.04	133.02	Tr100	1.12	452.00	452.11	452.18	452.38	0.244786	2.30	0.49	6.05	2.59
B.04	B.04	133.02	Tr500	1.67	452.00	452.13	452.22	452.50	0.275074	2.71	0.62	6.53	2.82
B.04	B.04	121.58	Tr200	1.35	451.97	452.09	452.09	452.13	0.040359	0.88	1.53	20.85	1.04
B.04	B.04	121.58	Tr050	0.89	451.97	452.07	452.07	452.10	0.035784	0.81	1.11	15.72	0.97
B.04	B.04	121.58	Tr100	1.12	451.97	452.09	452.09	452.12	0.035141	0.79	1.41	20.37	0.96
B.04	B.04	121.58	Tr500	1.67	451.97	452.10	452.10	452.15	0.039314	0.94	1.77	21.42	1.04
B.04	B.04	113.02	Tr200	1.35	448.84	448.86	448.96	450.73	9.740503	6.05	0.22	10.33	13.13
B.04	B.04	113.02	Tr050	0.89	448.84	448.85	448.94	450.79	17.994520	6.16	0.14	10.32	16.61
B.04	B.04	113.02	Tr100	1.12	448.84	448.86	448.94	450.83	13.764580	6.23	0.18	10.32	15.07
B.04	B.04	113.02	Tr500	1.67	448.84	448.87	448.98	450.79	7.757872	6.15	0.27	10.34	12.11
B.04	B.04	103.02	Tr200	1.35	448.84	449.12	448.96	449.13	0.002025	0.46	2.92	10.85	0.28
B.04	B.04	103.02	Tr050	0.89	448.84	449.07	448.93	449.07	0.001726	0.38	2.37	10.73	0.26
B.04	B.04	103.02	Tr100	1.12	448.84	449.09	448.95	449.10	0.001919	0.42	2.64	10.79	0.27
B.04	B.04	103.02	Tr500	1.67	448.84	449.14	448.98	449.16	0.002272	0.52	3.21	10.91	0.31
B.04	B.04	93.02	Tr200	1.35	448.84	449.10		449.11	0.002232	0.46	2.92	11.79	0.30
B.04	B.04	93.02	Tr050	0.89	448.84	449.05		449.06	0.001935	0.38	2.36	11.66	0.27
B.04	B.04	93.02	Tr100	1.12	448.84	449.07		449.08	0.002148	0.42	2.64	11.72	0.29
B.04	B.04	93.02	Tr500	1.67	448.84	449.12		449.13	0.002520	0.52	3.21	11.86	0.32
B.04	B.04	83.02	Tr200	1.35	448.84	449.08		449.09	0.001669	0.39	3.50	14.88	0.25
B.04	B.04	83.02	Tr050	0.89	448.84	449.03		449.04	0.001481	0.32	2.81	14.78	0.23
B.04	B.04	83.02	Tr100	1.12	448.84	449.06		449.06	0.001638	0.36	3.14	14.83	0.25
B.04	B.04	83.02	Tr500	1.67	448.84	449.10		449.11	0.001908	0.44	3.83	14.93	0.28
B.04	B.04	75.05	Tr200	1.35	448.84	449.05		449.07	0.003993	0.54	2.52	12.74	0.38
B.04	B.04	75.05	Tr050	0.89	448.84	449.01		449.02	0.003667	0.45	1.99	12.41	0.36
B.04	B.04	75.05	Tr100	1.12	448.84	449.03		449.04	0.004092	0.50	2.23	12.55	0.38
B.04	B.04	75.05	Tr500	1.67	448.84	449.07		449.09	0.004762	0.61	2.73	12.87	0.42
B.04	B.04	63.01	Tr200	1.35	448.73	448.90	448.90	448.95	0.040715	1.02	1.33	14.72	1.08
B.04	B.04	63.01	Tr050	0.89	448.73	448.87	448.87	448.92	0.046049	0.93	0.96	13.22	1.11
B.04	B.04	63.01	Tr100	1.12	448.73	448.89	448.89	448.94	0.036448	0.92	1.21	14.27	1.01
B.04	B.04	63.01	Tr500	1.67	448.73	448.93	448.93	448.97	0.025798	0.95	1.75	15.29	0.89
B.04	B.04	52.15	Tr200	1.35	448.00	448.05	448.08	448.16	0.166397	1.44	0.94	17.68	2.00
B.04	B.04	52.15	Tr050	0.89	448.00	448.04	448.06	448.11	0.140069	1.16	0.77	17.55	1.77
B.04	B.04	52.15	Tr100	1.12	448.00	448.05	448.07	448.15	0.201948	1.42	0.79	17.56	2.14
B.04	B.04	52.15	Tr500	1.67	448.00	448.05	448.11	448.26	0.383803	2.02	0.83	17.59	2.97
B.04	B.04	43.02	Tr200	1.35	446.88	447.06	447.08	447.15	0.078024	1.37	0.98	11.27	1.48
B.04	B.04	43.02	Tr050	0.89	446.88	447.03	447.05	447.11	0.088933	1.26	0.70	10.08	1.53
B.04	B.04	43.02	Tr100	1.12	446.88	447.05	447.08	447.13	0.068749	1.23	0.91	11.16	1.38
B.04	B.04	43.02	Tr500	1.67	446.88	447.08	447.11	447.17	0.053803	1.32	1.27	11.69	1.28
B.04	B.04	33.02	Tr200	1.35	445.94	446.06	446.11	446.19	0.120899	1.56	0.86	11.32	1.81
B.04	B.04	33.02	Tr050	0.89	445.94	446.05	446.08	446.13	0.108366	1.29	0.69	11.13	1.65
B.04	B.04	33.02	Tr100	1.12	445.94	446.05	446.08	446.17	0.144183	1.54	0.73	11.18	1.92
B.04	B.04	33.02	Tr500	1.67	445.94	446.06	446.11	446.25	0.183845	1.93	0.87	11.32	2.23
B.04	B.04	17.8	Tr200	1.35	445.09	445.32	445.32	445.39	0.028440	1.18	1.20	10.25	0.98
B.04	B.04	17.8	Tr050	0.89	445.09	445.29	445.29	445.34	0.029991	1.03	0.88	8.81	0.96
B.04	B.04	17.8	Tr100	1.12	445.09	445.29	445.31	445.37	0.042580	1.25	0.92	8.98	1.16
B.04	B.04	17.8	Tr500	1.67	445.09	445.34	445.35	445.42	0.024495	1.22	1.48	11.99	0.93
B.04	B.04	4.31	Tr200	1.35	444.00	444.03	444.07	444.28	0.815429	2.20	0.61	20.13	4.03
B.04	B.04	4.31	Tr050	0.89	444.00	444.02	444.06	444.20	0.770713	1.84	0.48	20.03	3.77

HEC-RAS Plan: 14 River: B.03 Reach: B.03

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
B.03	616.76	Tr200	10.55	484.00	484.56	484.52	484.65	0.014934	1.37	7.72	25.84	0.79
B.03	616.76	Tr050	7.65	484.00	484.51	484.47	484.58	0.014219	1.19	6.45	25.56	0.75
B.03	616.76	Tr100	9.08	484.00	484.54	484.49	484.62	0.014170	1.27	7.16	25.72	0.76
B.03	616.76	Tr500	12.50	484.00	484.50	484.54	484.71	0.041997	2.00	6.26	25.52	1.29
B.03	606.76	Tr200	10.55	483.99	484.33	484.33	484.47	0.023597	1.62	6.54	24.95	0.99
B.03	606.76	Tr050	7.65	483.99	484.28	484.28	484.39	0.025807	1.47	5.22	23.84	1.00
B.03	606.76	Tr100	9.08	483.99	484.31	484.31	484.43	0.024686	1.55	5.87	24.39	0.99
B.03	606.76	Tr500	12.50	483.99	484.37	484.37	484.52	0.022310	1.71	7.41	25.86	0.98
B.03	596.77	Tr200	10.55	483.64	483.96	484.00	484.15	0.042978	1.94	5.48	25.44	1.29
B.03	596.77	Tr050	7.65	483.64	483.92	483.95	484.06	0.041314	1.68	4.55	24.12	1.23
B.03	596.77	Tr100	9.08	483.64	483.94	483.98	484.10	0.040870	1.80	5.07	24.86	1.25
B.03	596.77	Tr500	12.50	483.64	483.98	484.03	484.20	0.043747	2.08	6.06	25.90	1.33
B.03	586.77	Tr200	10.55	482.44	482.74	482.91	483.35	0.163558	3.45	3.10	17.24	2.47
B.03	586.77	Tr050	7.65	482.44	482.70	482.84	483.24	0.204009	3.25	2.36	15.59	2.64
B.03	586.77	Tr100	9.08	482.44	482.72	482.88	483.30	0.183357	3.37	2.71	16.39	2.56
B.03	586.77	Tr500	12.50	482.44	482.77	482.95	483.42	0.148280	3.57	3.58	18.27	2.40
B.03	576.77	Tr200	10.55	481.91	482.43	482.27	482.49	0.005360	1.03	10.28	25.35	0.51
B.03	576.77	Tr050	7.65	481.91	482.36	482.21	482.40	0.005120	0.89	8.56	24.33	0.48
B.03	576.77	Tr100	9.08	481.91	482.40	482.24	482.44	0.005261	0.97	9.42	24.85	0.49
B.03	576.77	Tr500	12.50	481.91	482.47	482.31	482.54	0.005512	1.11	11.33	25.67	0.52
B.03	566.77	Tr200	10.55	481.80	482.32		482.41	0.011254	1.30	8.18	25.07	0.71
B.03	566.77	Tr050	7.65	481.80	482.25		482.32	0.012242	1.17	6.54	23.87	0.71
B.03	566.77	Tr100	9.08	481.80	482.29		482.37	0.011989	1.25	7.31	24.44	0.72
B.03	566.77	Tr500	12.50	481.80	482.36		482.45	0.011455	1.39	9.05	25.68	0.72
B.03	556.77	Tr200	10.55	481.65	482.10	482.10	482.24	0.023727	1.68	6.29	22.67	1.00
B.03	556.77	Tr050	7.65	481.65	482.06	482.04	482.16	0.021290	1.43	5.34	21.75	0.92
B.03	556.77	Tr100	9.08	481.65	482.08	482.07	482.20	0.021870	1.55	5.88	22.28	0.95
B.03	556.77	Tr500	12.50	481.65	482.14	482.14	482.29	0.022036	1.76	7.17	23.48	0.98
B.03	546.77	Tr200	10.55	481.38	481.86	481.86	482.01	0.022770	1.71	6.21	21.38	0.99
B.03	546.77	Tr050	7.65	481.38	481.80	481.80	481.93	0.025075	1.55	4.95	20.47	1.00
B.03	546.77	Tr100	9.08	481.38	481.83	481.83	481.97	0.024588	1.65	5.53	20.89	1.01
B.03	546.77	Tr500	12.50	481.38	481.89	481.90	482.07	0.023667	1.85	6.83	21.81	1.02
B.03	536.77	Tr200	10.55	480.66	481.08	481.24	481.59	0.080877	3.15	3.39	12.40	1.83
B.03	536.77	Tr050	7.65	480.66	481.02	481.15	481.45	0.092956	2.89	2.65	11.31	1.88
B.03	536.77	Tr100	9.08	480.66	481.05	481.20	481.52	0.088859	3.05	2.99	11.77	1.88
B.03	536.77	Tr500	12.50	480.66	481.13	481.29	481.65	0.070254	3.22	3.98	13.31	1.74
B.03	526.77	Tr200	10.55	479.93	480.59	480.68	480.94	0.045234	2.62	4.04	12.00	1.41
B.03	526.77	Tr050	7.65	479.93	480.54	480.60	480.80	0.041770	2.25	3.40	11.54	1.32
B.03	526.77	Tr100	9.08	479.93	480.57	480.64	480.87	0.042829	2.43	3.74	11.79	1.36
B.03	526.77	Tr500	12.50	479.93	480.62	480.74	481.04	0.048457	2.86	4.39	12.25	1.48
B.03	516.77	Tr200	10.55	479.32	479.65	479.82	480.22	0.123104	3.34	3.18	14.19	2.20
B.03	516.77	Tr050	7.65	479.32	479.60	479.74	480.08	0.141589	3.07	2.50	13.53	2.27
B.03	516.77	Tr100	9.08	479.32	479.63	479.78	480.15	0.131413	3.21	2.84	13.88	2.23
B.03	516.77	Tr500	12.50	479.32	479.68	479.86	480.30	0.115407	3.50	3.61	14.58	2.17
B.03	506.77	Tr200	10.55	478.59	479.06	479.14	479.36	0.053762	2.45	4.32	15.90	1.49
B.03	506.77	Tr050	7.65	478.59	479.01	479.07	479.24	0.048375	2.09	3.67	15.62	1.37
B.03	506.77	Tr100	9.08	478.59	479.04	479.10	479.30	0.051099	2.27	4.00	15.76	1.43
B.03	506.77	Tr500	12.50	478.59	479.08	479.18	479.44	0.056786	2.66	4.71	16.06	1.55
B.03	496.77	Tr200	10.55	477.96	478.18	478.29	478.57	0.122061	2.78	3.80	21.42	2.09
B.03	496.77	Tr050	7.65	477.96	478.14	478.24	478.47	0.135333	2.52	3.03	21.16	2.12
B.03	496.77	Tr100	9.08	477.96	478.16	478.27	478.52	0.127738	2.65	3.42	21.30	2.10
B.03	496.77	Tr500	12.50	477.96	478.20	478.33	478.64	0.117286	2.94	4.26	21.55	2.09
B.03	486.77	Tr200	10.55	477.87	478.32	478.22	478.39	0.008976	1.22	8.63	23.25	0.64
B.03	486.77	Tr050	7.65	477.87	478.25	478.16	478.31	0.008849	1.07	7.14	23.05	0.61
B.03	486.77	Tr100	9.08	477.87	478.29	478.19	478.35	0.008931	1.15	7.89	23.15	0.63
B.03	486.77	Tr500	12.50	477.87	478.36	478.25	478.44	0.009047	1.31	9.54	23.38	0.65
B.03	476.77	Tr200	10.55	477.73	478.11	478.11	478.25	0.024357	1.66	6.36	23.21	1.01
B.03	476.77	Tr050	7.65	477.73	478.05	478.05	478.17	0.026375	1.50	5.11	22.83	1.01
B.03	476.77	Tr100	9.08	477.73	478.08	478.08	478.21	0.024588	1.57	5.79	23.04	0.99
B.03	476.77	Tr500	12.50	477.73	478.14	478.14	478.30	0.023919	1.77	7.09	23.43	1.01

HEC-RAS Plan: 14 River: B.03 Reach: B.03 (Continued)

Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
B.03	466.77	Tr200	10.55	477.13	477.74	477.78	477.97	0.029386	2.13	5.00	15.18	1.15
B.03	466.77	Tr050	7.65	477.13	477.67	477.70	477.87	0.034099	1.96	3.91	14.32	1.19
B.03	466.77	Tr100	9.08	477.13	477.71	477.74	477.92	0.031435	2.04	4.45	14.75	1.16
B.03	466.77	Tr500	12.50	477.13	477.79	477.83	478.04	0.028121	2.24	5.65	15.67	1.14
B.03	456.77	Tr200	10.55	476.68	477.35	477.43	477.65	0.034609	2.41	4.44	13.74	1.26
B.03	456.77	Tr050	7.65	476.68	477.29	477.33	477.52	0.035978	2.15	3.57	11.91	1.24
B.03	456.77	Tr100	9.08	476.68	477.32	477.38	477.59	0.035191	2.28	4.00	12.49	1.25
B.03	456.77	Tr500	12.50	476.68	477.39	477.47	477.73	0.034250	2.56	5.00	14.37	1.27
B.03	446.77	Tr200	10.55	476.12	476.58	476.75	477.11	0.079480	3.24	3.29	11.46	1.85
B.03	446.77	Tr050	7.65	476.12	476.52	476.66	476.96	0.088396	2.94	2.60	10.63	1.88
B.03	446.77	Tr100	9.08	476.12	476.55	476.71	477.04	0.083102	3.09	2.95	11.11	1.86
B.03	446.77	Tr500	12.50	476.12	476.62	476.80	477.21	0.074940	3.40	3.75	11.96	1.83
B.03	436.77	Tr200	10.55	475.37	475.93	476.06	476.37	0.066655	2.95	3.61	12.58	1.69
B.03	436.77	Tr050	7.65	475.37	475.88	475.98	476.20	0.059936	2.51	3.05	11.74	1.56
B.03	436.77	Tr100	9.08	475.37	475.90	476.02	476.29	0.063572	2.74	3.33	12.17	1.63
B.03	436.77	Tr500	12.50	475.37	475.96	476.11	476.46	0.067393	3.16	4.01	13.16	1.73
B.03	426.77	Tr200	10.55	474.96	475.66	475.70	475.91	0.027187	2.25	4.74	12.96	1.13
B.03	426.77	Tr050	7.65	474.96	475.59	475.61	475.79	0.026153	1.96	3.91	11.83	1.07
B.03	426.77	Tr100	9.08	474.96	475.62	475.65	475.85	0.026549	2.10	4.33	12.42	1.10
B.03	426.77	Tr500	12.50	474.96	475.69	475.75	475.99	0.028198	2.43	5.24	13.58	1.17
B.03	416.77	Tr200	10.55	474.87	475.58	475.47	475.68	0.009271	1.40	7.61	18.92	0.67
B.03	416.77	Tr050	7.65	474.87	475.49	475.40	475.58	0.009984	1.26	6.07	17.18	0.67
B.03	416.77	Tr100	9.08	474.87	475.54	475.44	475.63	0.009235	1.32	6.92	18.16	0.66
B.03	416.77	Tr500	12.50	474.87	475.63	475.52	475.74	0.009355	1.50	8.49	19.83	0.68
B.03	406.77	Tr200	10.55	474.71	475.35	475.35	475.54	0.021451	1.91	5.58	16.34	0.99
B.03	406.77	Tr050	7.65	474.71	475.28	475.27	475.43	0.021682	1.69	4.53	14.77	0.96
B.03	406.77	Tr100	9.08	474.71	475.31	475.31	475.48	0.023072	1.84	4.94	15.41	1.01
B.03	406.77	Tr500	12.50	474.71	475.40	475.40	475.60	0.019507	1.98	6.45	17.54	0.96
B.03	396.77	Tr200	10.55	474.59	475.10	475.12	475.30	0.026322	2.00	5.29	15.97	1.08
B.03	396.77	Tr050	7.65	474.59	475.04	475.04	475.20	0.024321	1.72	4.45	15.14	1.01
B.03	396.77	Tr100	9.08	474.59	475.07	475.08	475.25	0.025398	1.87	4.87	15.56	1.04
B.03	396.77	Tr500	12.50	474.59	475.13	475.17	475.37	0.028115	2.19	5.77	16.42	1.13
B.03	386.78	Tr200	10.55	474.10	474.72	474.78	475.01	0.031344	2.38	4.50	12.86	1.20
B.03	386.78	Tr050	7.65	474.10	474.63	474.69	474.89	0.039188	2.25	3.41	11.24	1.29
B.03	386.78	Tr100	9.08	474.10	474.68	474.74	474.95	0.035132	2.33	3.93	12.04	1.25
B.03	386.78	Tr500	12.50	474.10	474.77	474.84	475.08	0.028633	2.48	5.21	13.81	1.17
B.03	376.78	Tr200	10.55	473.85	474.44	474.48	474.69	0.029442	2.22	4.78	13.60	1.16
B.03	376.78	Tr050	7.65	473.85	474.40	474.40	474.57	0.023057	1.81	4.22	12.93	1.00
B.03	376.78	Tr100	9.08	473.85	474.43	474.44	474.63	0.025112	1.99	4.57	13.35	1.06
B.03	376.78	Tr500	12.50	473.85	474.47	474.54	474.77	0.031444	2.42	5.22	14.09	1.21
B.03	366.78	Tr200	10.55	473.45	473.84	473.95	474.22	0.080204	2.74	3.90	17.46	1.78
B.03	366.78	Tr050	7.65	473.45	473.78	473.88	474.12	0.101006	2.58	2.96	16.34	1.91
B.03	366.78	Tr100	9.08	473.45	473.81	473.92	474.17	0.091045	2.68	3.41	17.09	1.86
B.03	366.78	Tr500	12.50	473.45	473.86	473.99	474.29	0.077562	2.89	4.39	17.83	1.78
B.03	356.42	Tr200	10.55	471.72	472.51	472.80	473.44	0.060431	4.28	2.50	4.36	1.71
B.03	356.42	Tr050	7.65	471.72	472.37	472.62	473.18	0.073430	4.00	1.92	3.94	1.81
B.03	356.42	Tr100	9.08	471.72	472.44	472.71	473.31	0.066444	4.15	2.20	4.15	1.76
B.03	356.42	Tr500	12.50	471.72	472.60	472.89	473.57	0.052806	4.39	2.92	4.64	1.64
B.03	346.78	Tr200	10.55	471.64	472.83	472.71	473.11	0.012894	2.37	4.47	5.55	0.82
B.03	346.78	Tr050	7.65	471.64	472.74	472.54	472.93	0.009716	1.92	3.99	5.28	0.70
B.03	346.78	Tr100	9.08	471.64	472.81	472.63	473.03	0.010205	2.08	4.37	5.50	0.72
B.03	346.78	Tr500	12.50	471.64	472.81	472.81	473.23	0.019537	2.88	4.36	5.49	1.00
B.03	337.95	Tr200	10.55	471.57	472.69	472.69	472.99	0.014837	2.44	4.57	8.71	0.88
B.03	337.95	Tr050	7.65	471.57	472.49	472.49	472.79	0.021270	2.41	3.17	5.52	1.00
B.03	337.95	Tr100	9.08	471.57	472.57	472.57	472.90	0.019611	2.52	3.63	6.14	0.98
B.03	337.95	Tr500	12.50	471.57	472.65	472.77	473.13	0.025120	3.07	4.23	8.49	1.13
B.03	335.33	Tr200	10.55	470.26	470.87	471.36	472.74	0.158972	6.08	1.76	3.82	2.71
B.03	335.33	Tr050	7.65	470.26	470.74	471.18	472.51	0.219353	5.90	1.30	3.44	3.03
B.03	335.33	Tr100	9.08	470.26	470.80	471.26	472.63	0.183883	5.99	1.53	3.63	2.85
B.03	335.33	Tr500	12.50	470.26	470.95	471.47	472.86	0.133606	6.16	2.09	4.07	2.54

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
B.03	326.78	Tr200	10.55	470.01	470.81	471.08	471.68	0.057550	4.13	2.57	4.41	1.66
B.03	326.78	Tr050	7.65	470.01	470.72	470.91	471.36	0.053178	3.55	2.16	4.12	1.55
B.03	326.78	Tr100	9.08	470.01	470.77	471.00	471.52	0.055261	3.84	2.37	4.27	1.61
B.03	326.78	Tr500	12.50	470.01	470.88	471.19	471.87	0.057727	4.42	2.87	4.61	1.69
B.03	326		Bridge									
B.03	311.47	Tr200	10.55	469.57	470.48	470.64	471.10	0.036129	3.49	3.04	4.72	1.33
B.03	311.47	Tr050	7.65	469.57	470.35	470.46	470.84	0.037547	3.11	2.46	4.33	1.32
B.03	311.47	Tr100	9.08	469.57	470.41	470.55	470.97	0.036565	3.30	2.75	4.53	1.32
B.03	311.47	Tr500	12.50	469.57	470.56	470.72	471.25	0.034877	3.70	3.44	4.96	1.34
B.03	306.78	Tr200	10.55	469.43	470.37	470.49	470.93	0.031454	3.33	3.20	4.81	1.25
B.03	306.78	Tr050	7.65	469.43	470.28	470.32	470.67	0.025924	2.76	2.77	4.54	1.11
B.03	306.78	Tr100	9.08	469.43	470.31	470.41	470.80	0.030542	3.11	2.93	4.64	1.22
B.03	306.78	Tr500	12.50	469.43	470.44	470.67	471.09	0.031882	3.57	3.55	5.03	1.28
B.03	296.78	Tr200	10.55	469.15	470.12	470.29	470.63	0.026873	3.16	3.37	4.92	1.16
B.03	296.78	Tr050	7.65	469.15	469.99	470.04	470.39	0.027904	2.82	2.72	4.51	1.15
B.03	296.78	Tr100	9.08	469.15	470.06	470.12	470.51	0.026751	2.98	3.06	4.73	1.14
B.03	296.78	Tr500	12.50	469.15	470.20	470.40	470.78	0.027160	3.39	3.86	8.82	1.19
B.03	286.78	Tr200	10.55	468.86	469.85	469.95	470.37	0.026577	3.18	3.35	4.74	1.15
B.03	286.78	Tr050	7.65	468.86	469.72	469.77	470.12	0.026978	2.81	2.73	4.36	1.12
B.03	286.78	Tr100	9.08	468.86	469.79	469.86	470.25	0.026668	3.00	3.04	4.56	1.14
B.03	286.78	Tr500	12.50	468.86	469.94	470.06	470.52	0.026176	3.38	3.76	4.98	1.16
B.03	276.78	Tr200	10.55	468.61	469.58	469.75	470.09	0.027152	3.16	3.37	4.91	1.17
B.03	276.78	Tr050	7.65	468.61	469.47	469.51	469.84	0.025405	2.72	2.81	4.56	1.10
B.03	276.78	Tr100	9.08	468.61	469.51	469.59	469.97	0.028241	3.01	3.02	4.70	1.17
B.03	276.78	Tr500	12.50	468.61	469.65	469.88	470.24	0.028084	3.41	3.72	5.12	1.20
B.03	266.78	Tr200	10.55	468.36	469.00	469.25	469.66	0.077538	3.58	2.95	7.64	1.84
B.03	266.78	Tr050	7.65	468.36	468.94	469.10	469.44	0.069961	3.13	2.45	7.20	1.71
B.03	266.78	Tr100	9.08	468.36	468.98	469.16	469.54	0.071213	3.32	2.74	7.46	1.75
B.03	266.78	Tr500	12.50	468.36	469.05	469.31	469.78	0.079160	3.80	3.29	7.93	1.88
B.03	256.78	Tr200	10.55	468.40	469.15	469.15	469.35	0.020168	2.02	5.31	14.02	0.98
B.03	256.78	Tr050	7.65	468.40	469.06	469.06	469.23	0.022644	1.84	4.16	12.43	1.00
B.03	256.78	Tr100	9.08	468.40	469.10	469.10	469.30	0.021819	1.95	4.69	13.18	1.00
B.03	256.78	Tr500	12.50	468.40	469.21	469.21	469.43	0.018233	2.09	6.16	15.09	0.95
B.03	246.78	Tr200	10.55	468.07	468.81	468.87	469.10	0.031072	2.39	4.46	12.26	1.20
B.03	246.78	Tr050	7.65	468.07	468.74	468.77	468.97	0.031196	2.11	3.63	11.19	1.17
B.03	246.78	Tr100	9.08	468.07	468.77	468.82	469.03	0.031835	2.27	4.02	11.72	1.20
B.03	246.78	Tr500	12.50	468.07	468.85	468.92	469.18	0.030669	2.54	5.01	12.89	1.22
B.03	236.78	Tr200	10.55	467.29	467.95	468.17	468.63	0.060669	3.66	2.93	7.22	1.71
B.03	236.78	Tr050	7.65	467.29	467.84	468.04	468.46	0.077571	3.47	2.20	6.28	1.85
B.03	236.78	Tr100	9.08	467.29	467.90	468.11	468.55	0.067834	3.57	2.56	6.76	1.77
B.03	236.78	Tr500	12.50	467.29	468.01	468.25	468.74	0.054881	3.79	3.41	7.78	1.66
B.03	226.78	Tr200	10.55	466.66	467.30	467.49	467.92	0.078416	3.47	3.05	8.98	1.86
B.03	226.78	Tr050	7.65	466.66	467.26	467.39	467.69	0.065367	2.89	2.64	8.66	1.66
B.03	226.78	Tr100	9.08	466.66	467.28	467.44	467.80	0.071974	3.19	2.85	8.82	1.77
B.03	226.78	Tr500	12.50	466.66	467.33	467.56	468.07	0.083804	3.79	3.32	9.19	1.95
B.03	216.78	Tr200	10.55	466.00	466.43	466.63	467.07	0.092464	3.52	3.02	10.24	1.99
B.03	216.78	Tr050	7.65	466.00	466.37	466.53	466.88	0.098513	3.16	2.42	9.53	1.98
B.03	216.78	Tr100	9.08	466.00	466.41	466.58	466.97	0.094188	3.34	2.73	9.95	1.97
B.03	216.78	Tr500	12.50	466.00	466.47	466.69	467.18	0.090948	3.74	3.39	10.60	2.00
B.03	206.78	Tr200	10.55	465.89	466.33	466.34	466.53	0.023008	1.97	5.40	14.92	1.03
B.03	206.78	Tr050	7.65	465.89	466.20	466.26	466.45	0.052079	2.21	3.46	14.41	1.44
B.03	206.78	Tr100	9.08	465.89	466.28	466.30	466.48	0.028810	1.98	4.60	14.71	1.12
B.03	206.78	Tr500	12.50	465.89	466.35	466.38	466.60	0.026297	2.19	5.75	15.02	1.11
B.03	196.78	Tr200	10.55	464.00	464.35	464.70	465.86	0.240639	5.45	1.94	6.77	3.18
B.03	196.78	Tr050	7.65	464.00	464.30	464.58	465.41	0.220299	4.67	1.64	6.46	2.96
B.03	196.78	Tr100	9.08	464.00	464.31	464.64	465.71	0.256279	5.23	1.74	6.56	3.22
B.03	196.78	Tr500	12.50	464.00	464.40	464.77	465.91	0.193374	5.45	2.32	7.13	2.93
B.03	186.78	Tr200	10.55	463.81	464.21	464.31	464.55	0.051615	2.59	4.08	13.41	1.49
B.03	186.78	Tr050	7.65	463.81	464.18	464.22	464.40	0.037041	2.06	3.72	13.24	1.24
B.03	186.78	Tr100	9.08	463.81	464.19	464.26	464.47	0.045602	2.35	3.87	13.31	1.38

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
B.03	186.78	Tr500	12.50	463.81	464.24	464.35	464.64	0.054994	2.82	4.44	13.57	1.55
B.03	176.78	Tr200	10.55	462.33	462.63	462.86	463.56	0.214457	4.28	2.49	12.01	2.88
B.03	176.78	Tr050	7.65	462.33	462.57	462.78	463.50	0.326323	4.28	1.79	11.03	3.37
B.03	176.78	Tr100	9.08	462.33	462.60	462.82	463.52	0.251710	4.23	2.15	11.34	3.05
B.03	176.78	Tr500	12.50	462.33	462.66	462.91	463.65	0.191888	4.42	2.88	12.68	2.78
B.03	166.78	Tr200	10.55	460.50	460.81	460.99	461.47	0.190150	3.59	2.94	15.64	2.63
B.03	166.78	Tr050	7.65	460.50	460.79	460.92	461.23	0.149118	2.93	2.61	15.51	2.28
B.03	166.78	Tr100	9.08	460.50	460.80	460.95	461.35	0.170600	3.27	2.78	15.58	2.47
B.03	166.78	Tr500	12.50	460.50	460.83	461.03	461.61	0.203651	3.92	3.19	15.74	2.76
B.03	156.78	Tr200	10.55	460.04	460.61	460.63	460.81	0.024633	1.96	5.51	17.35	1.05
B.03	156.78	Tr050	7.65	460.04	460.54	460.56	460.71	0.029297	1.83	4.22	16.63	1.10
B.03	156.78	Tr100	9.08	460.04	460.59	460.60	460.75	0.022509	1.80	5.15	17.30	1.00
B.03	156.78	Tr500	12.50	460.04	460.64	460.67	460.87	0.026779	2.15	5.98	17.41	1.11
B.03	146.78	Tr200	10.55	459.69	460.40	460.33	460.51	0.012263	1.49	7.09	17.92	0.75
B.03	146.78	Tr050	7.65	459.69	460.33	460.25	460.42	0.012537	1.32	5.79	17.76	0.73
B.03	146.78	Tr100	9.08	459.69	460.36	460.29	460.47	0.012405	1.41	6.45	17.84	0.74
B.03	146.78	Tr500	12.50	459.69	460.44	460.37	460.57	0.012198	1.59	7.87	18.01	0.76
B.03	136.78	Tr200	10.55	459.65	460.35		460.42	0.006165	1.17	9.05	19.49	0.54
B.03	136.78	Tr050	7.65	459.65	460.27		460.32	0.005826	1.01	7.58	19.34	0.51
B.03	136.78	Tr100	9.08	459.65	460.31		460.37	0.006037	1.09	8.32	19.42	0.53
B.03	136.78	Tr500	12.50	459.65	460.39		460.47	0.006351	1.26	9.94	19.58	0.56
B.03	126.78	Tr200	10.55	459.65	460.14	460.14	460.30	0.024178	1.75	6.03	19.94	1.01
B.03	126.78	Tr050	7.65	459.65	460.09	460.08	460.21	0.024284	1.54	4.96	19.76	0.98
B.03	126.78	Tr100	9.08	459.65	460.12	460.12	460.26	0.024601	1.66	5.48	19.85	1.00
B.03	126.78	Tr500	12.50	459.65	460.18	460.18	460.35	0.023036	1.85	6.78	20.06	1.01
B.03	116.78	Tr200	10.55	459.37	459.88	459.89	460.05	0.026402	1.85	5.72	18.59	1.06
B.03	116.78	Tr050	7.65	459.37	459.82	459.82	459.96	0.025676	1.61	4.75	18.45	1.01
B.03	116.78	Tr100	9.08	459.37	459.85	459.86	460.00	0.026748	1.75	5.20	18.51	1.05
B.03	116.78	Tr500	12.50	459.37	459.91	459.93	460.11	0.026151	1.97	6.36	18.68	1.07
B.03	106.78	Tr200	10.55	459.05	459.56	459.59	459.78	0.029629	2.09	5.14	17.01	1.14
B.03	106.78	Tr050	7.65	459.05	459.49	459.52	459.67	0.031458	1.87	4.09	15.41	1.14
B.03	106.78	Tr100	9.08	459.05	459.53	459.56	459.72	0.029218	1.96	4.68	16.87	1.12
B.03	106.78	Tr500	12.50	459.05	459.60	459.64	459.84	0.028384	2.20	5.82	17.18	1.14
B.03	96.78	Tr200	10.55	458.15	458.36	458.54	459.08	0.221014	3.77	2.80	15.61	2.82
B.03	96.78	Tr050	7.65	458.15	458.32	458.47	458.93	0.256470	3.47	2.21	15.38	2.92
B.03	96.78	Tr100	9.08	458.15	458.34	458.51	459.02	0.245601	3.67	2.48	15.49	2.91
B.03	96.78	Tr500	12.50	458.15	458.38	458.58	459.18	0.207581	3.96	3.17	15.75	2.79
B.03	86.78	Tr200	10.55	457.10	457.66	457.81	458.14	0.045441	3.07	3.45	8.15	1.47
B.03	86.78	Tr050	7.65	457.10	457.59	457.69	457.96	0.045393	2.70	2.83	7.76	1.42
B.03	86.78	Tr100	9.08	457.10	457.63	457.75	458.05	0.045084	2.89	3.15	7.96	1.44
B.03	86.78	Tr500	12.50	457.10	457.71	457.88	458.26	0.045271	3.28	3.85	8.41	1.49
B.03	76.78	Tr200	10.55	456.50	457.23	457.36	457.75	0.033735	3.21	3.32	5.79	1.29
B.03	76.78	Tr050	7.65	456.50	457.10	457.20	457.54	0.038507	2.94	2.60	5.24	1.32
B.03	76.78	Tr100	9.08	456.50	457.16	457.29	457.65	0.035617	3.08	2.96	5.51	1.30
B.03	76.78	Tr500	12.50	456.50	457.31	457.46	457.88	0.031952	3.38	3.78	6.15	1.27
B.03	66.78	Tr200	10.55	456.27	456.80	456.96	457.33	0.052647	3.23	3.28	7.86	1.57
B.03	66.78	Tr050	7.65	456.27	456.75	456.84	457.11	0.042460	2.66	2.87	7.61	1.38
B.03	66.78	Tr100	9.08	456.27	456.77	456.90	457.23	0.050198	3.00	3.03	7.71	1.51
B.03	66.78	Tr500	12.50	456.27	456.84	457.03	457.46	0.054236	3.49	3.61	8.07	1.61
B.03	56.78	Tr200	10.55	455.73	456.86	456.43	456.91	0.003027	1.01	10.65	22.55	0.40
B.03	56.78	Tr050	7.65	455.73	456.77	456.32	456.80	0.002750	0.87	8.84	16.54	0.37
B.03	56.78	Tr100	9.08	455.73	456.82	456.38	456.86	0.002896	0.94	9.69	18.18	0.39
B.03	56.78	Tr500	12.50	455.73	456.92	456.49	456.98	0.003125	1.09	12.03	24.24	0.41
B.03	46.78	Tr200	10.55	456.10	456.65	456.65	456.84	0.021942	1.89	5.61	16.15	1.00
B.03	46.78	Tr050	7.65	456.10	456.58	456.58	456.73	0.023748	1.70	4.49	15.37	1.00
B.03	46.78	Tr100	9.08	456.10	456.62	456.62	456.79	0.023260	1.81	5.02	15.74	1.01
B.03	46.78	Tr500	12.50	456.10	456.70	456.70	456.90	0.020299	1.98	6.40	16.68	0.98
B.03	36.78	Tr200	10.55	456.00	456.58	456.40	456.65	0.005572	1.17	9.00	18.29	0.53
B.03	36.78	Tr050	7.65	456.00	456.50	456.33	456.55	0.005037	1.00	7.64	17.93	0.49
B.03	36.78	Tr100	9.08	456.00	456.54	456.36	456.60	0.005317	1.09	8.33	18.11	0.51

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
B.03	36.78	Tr500	12.50	456.00	456.62	456.44	456.70	0.005859	1.28	9.84	18.50	0.55
B.03	26.78	Tr200	10.55	455.83	456.48		456.57	0.009514	1.33	7.93	19.84	0.67
B.03	26.78	Tr050	7.65	455.83	456.42		456.48	0.008995	1.15	6.64	19.49	0.63
B.03	26.78	Tr100	9.08	455.83	456.45		456.53	0.009270	1.25	7.29	19.67	0.65
B.03	26.78	Tr500	12.50	455.83	456.52		456.63	0.009734	1.44	8.73	20.06	0.68
B.03	16.78	Tr200	10.55	455.73	456.35		456.46	0.013365	1.44	7.32	20.83	0.77
B.03	16.78	Tr050	7.65	455.73	456.28		456.37	0.014334	1.30	5.90	20.60	0.77
B.03	16.78	Tr100	9.08	455.73	456.32		456.41	0.013857	1.37	6.61	20.72	0.77
B.03	16.78	Tr500	12.50	455.73	456.39		456.51	0.013437	1.55	8.09	20.96	0.79
B.03	6.78	Tr200	10.55	455.39	456.11	456.11	456.28	0.023617	1.81	5.86	18.47	1.01
B.03	6.78	Tr050	7.65	455.39	456.03	456.03	456.18	0.024286	1.69	4.52	15.75	1.01
B.03	6.78	Tr100	9.08	455.39	456.08	456.08	456.23	0.023538	1.74	5.22	17.24	1.00
B.03	6.78	Tr500	12.50	455.39	456.16	456.16	456.33	0.022718	1.85	6.79	20.13	1.00
B.03	0	Tr200	10.55	454.84	455.54	455.70	456.03	0.045189	3.14	3.49	10.49	1.48
B.03	0	Tr050	7.65	454.84	455.43	455.58	455.90	0.060784	3.03	2.52	7.45	1.64
B.03	0	Tr100	9.08	454.84	455.49	455.67	455.97	0.050800	3.07	2.99	8.84	1.54
B.03	0	Tr500	12.50	454.84	455.60	455.77	456.11	0.039105	3.19	4.26	13.75	1.40

River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
B.02.2	B.02.2	450.59	Tr500	0.70	491.40	491.58	491.60	491.66	0.060932	1.25	0.56	6.11	1.32
B.02.2	B.02.2	440.59	Tr200	0.58	490.65	490.80	490.85	490.91	0.103860	1.48	0.39	4.96	1.68
B.02.2	B.02.2	440.59	Tr050	0.39	490.65	490.80	490.81	490.86	0.060694	1.09	0.36	4.75	1.28
B.02.2	B.02.2	440.59	Tr100	0.48	490.65	490.80	490.82	490.88	0.067187	1.20	0.40	5.01	1.36
B.02.2	B.02.2	440.59	Tr500	0.70	490.65	490.82	490.85	490.93	0.088062	1.46	0.48	5.45	1.58
B.02.2	B.02.2	430.59	Tr200	0.58	490.00	490.08	490.11	490.13	0.059965	1.01	0.58	8.62	1.24
B.02.2	B.02.2	430.59	Tr050	0.39	490.00	490.06	490.07	490.11	0.093670	1.02	0.38	7.82	1.48
B.02.2	B.02.2	430.59	Tr100	0.48	490.00	490.06	490.08	490.12	0.083718	1.06	0.45	8.13	1.43
B.02.2	B.02.2	430.59	Tr500	0.70	490.00	490.09	490.11	490.15	0.067655	1.12	0.63	8.82	1.34
B.02.2	B.02.2	420.59	Tr200	0.58	489.39	489.59	489.61	489.65	0.038610	1.07	0.54	5.34	1.07
B.02.2	B.02.2	420.59	Tr050	0.39	489.39	489.57	489.58	489.61	0.030072	0.88	0.44	4.81	0.93
B.02.2	B.02.2	420.59	Tr100	0.48	489.39	489.50	489.58	490.06	0.890912	3.31	0.14	2.74	4.61
B.02.2	B.02.2	420.59	Tr500	0.70	489.39	489.61	489.62	489.67	0.034246	1.07	0.65	5.87	1.02
B.02.2	B.02.2	410.59	Tr200	0.58	488.24	488.37	488.43	488.71	0.444039	2.58	0.22	3.67	3.33
B.02.2	B.02.2	410.59	Tr050	0.39	488.24	488.34	488.41	488.76	0.662445	2.87	0.14	2.55	3.98
B.02.2	B.02.2	410.59	Tr100	0.48	488.24	488.41	488.43	488.48	0.055914	1.18	0.42	5.72	1.26
B.02.2	B.02.2	410.59	Tr500	0.70	488.24	488.38	488.47	488.77	0.524526	2.77	0.25	4.20	3.61
B.02.2	B.02.2	400.59	Tr200	0.58	487.68	487.82	487.82	487.87	0.045562	0.96	0.61	7.96	1.11
B.02.2	B.02.2	400.59	Tr050	0.39	487.68	487.81	487.81	487.84	0.038335	0.81	0.48	7.10	1.00
B.02.2	B.02.2	400.59	Tr100	0.48	487.68	487.80	487.82	487.86	0.066105	1.05	0.46	6.93	1.30
B.02.2	B.02.2	400.59	Tr500	0.70	487.68	487.84	487.84	487.88	0.036382	0.92	0.76	8.90	1.01
B.02.2	B.02.2	390.59	Tr200	0.58	486.81	486.89	486.92	487.00	0.224644	1.41	0.41	9.97	2.22
B.02.2	B.02.2	390.59	Tr050	0.39	486.81	486.88	486.90	486.99	0.324431	1.44	0.27	8.39	2.56
B.02.2	B.02.2	390.59	Tr100	0.48	486.81	486.90	486.92	486.96	0.131637	1.11	0.43	10.02	1.71
B.02.2	B.02.2	390.59	Tr500	0.70	486.81	486.89	486.93	487.05	0.339829	1.73	0.41	9.96	2.73
B.02.2	B.02.2	380.59	Tr200	0.58	485.99	486.07	486.08	486.11	0.045908	0.90	0.68	11.43	1.09
B.02.2	B.02.2	380.59	Tr050	0.39	485.99	486.05	486.05	486.08	0.049216	0.79	0.52	10.90	1.09
B.02.2	B.02.2	380.59	Tr100	0.48	485.99	486.06	486.08	486.10	0.060199	0.91	0.55	11.01	1.22
B.02.2	B.02.2	380.59	Tr500	0.70	485.99	486.05	486.08	486.15	0.163702	1.43	0.51	10.88	1.98
B.02.2	B.02.2	370.59	Tr200	0.58	485.09	485.16	485.19	485.28	0.192894	1.50	0.39	7.61	2.13
B.02.2	B.02.2	370.59	Tr050	0.39	485.09	485.15	485.19	485.23	0.176499	1.28	0.30	7.15	1.98
B.02.2	B.02.2	370.59	Tr100	0.48	485.09	485.16	485.19	485.24	0.129561	1.24	0.39	7.63	1.75
B.02.2	B.02.2	370.59	Tr500	0.70	485.09	485.19	485.21	485.25	0.055683	1.07	0.66	8.97	1.23
B.02.2	B.02.2	360.59	Tr200	0.58	484.19	484.34	484.34	484.40	0.049296	1.03	0.56	7.00	1.16
B.02.2	B.02.2	360.59	Tr050	0.39	484.19	484.32	484.32	484.36	0.051511	0.96	0.41	5.83	1.16
B.02.2	B.02.2	360.59	Tr100	0.48	484.19	484.32	484.34	484.38	0.061316	1.07	0.45	6.19	1.27
B.02.2	B.02.2	360.59	Tr500	0.70	484.19	484.32	484.37	484.45	0.125435	1.54	0.45	6.24	1.83
B.02.2	B.02.2	357.82	Tr200	0.58	482.50	482.57	482.73	483.87	1.540806	5.04	0.12	1.71	6.21
B.02.2	B.02.2	357.82	Tr050	0.39	482.50	482.55	482.68	483.81	2.338093	4.96	0.08	1.65	7.26
B.02.2	B.02.2	357.82	Tr100	0.48	482.50	482.56	482.70	483.78	1.735624	4.88	0.10	1.69	6.45
B.02.2	B.02.2	357.82	Tr500	0.70	482.50	482.59	482.76	483.62	0.867027	4.49	0.16	1.78	4.85
B.02.2	B.02.2	343.34	Tr200	0.58	479.09	479.24	479.32	479.48	0.113640	2.17	0.27	1.96	1.87
B.02.2	B.02.2	343.34	Tr050	0.39	479.09	479.22	479.27	479.39	0.103604	1.83	0.21	1.88	1.74
B.02.2	B.02.2	343.34	Tr100	0.48	479.09	479.23	479.29	479.44	0.109198	2.00	0.24	1.92	1.81
B.02.2	B.02.2	343.34	Tr500	0.70	479.09	479.26	479.35	479.55	0.127369	2.40	0.29	2.00	2.00
B.02.2	B.02.2	337.75	Tr200	0.58	478.25	478.39	478.48	478.70	0.175239	2.50	0.23	1.91	2.29
B.02.2	B.02.2	337.75	Tr050	0.39	478.25	478.36	478.43	478.61	0.191130	2.24	0.17	1.82	2.31
B.02.2	B.02.2	337.75	Tr100	0.48	478.25	478.37	478.45	478.66	0.180079	2.36	0.20	1.86	2.28
B.02.2	B.02.2	337.75	Tr500	0.70	478.25	478.41	478.51	478.75	0.160668	2.59	0.27	1.97	2.23
B.02.2	B.02.2	337		Culvert									
B.02.2	B.02.2	294.43	Tr200	0.58	472.32	472.38	472.55	474.62	3.672984	6.63	0.09	1.67	9.24
B.02.2	B.02.2	294.43	Tr050	0.39	472.32	472.36	472.50	474.51	5.561925	6.50	0.06	1.62	10.77
B.02.2	B.02.2	294.43	Tr100	0.48	472.32	472.37	472.52	474.55	4.432450	6.55	0.07	1.64	9.90
B.02.2	B.02.2	294.43	Tr500	0.70	472.32	472.76	472.57	472.79	0.005293	0.84	0.83	2.00	0.42
B.02.2	B.02.2	287.75	Tr200	0.58	472.33	472.68	472.56	472.71	0.006786	0.83	0.70	2.54	0.50
B.02.2	B.02.2	287.75	Tr050	0.39	472.33	472.61	472.51	472.64	0.006190	0.71	0.55	2.35	0.47
B.02.2	B.02.2	287.75	Tr100	0.48	472.33	472.65	472.53	472.68	0.006533	0.77	0.62	2.44	0.49
B.02.2	B.02.2	287.75	Tr500	0.70	472.33	472.71		472.75	0.007012	0.89	0.79	2.64	0.52
B.02.2	B.02.2	284.51	Tr200	0.58	472.34	472.57	472.57	472.67	0.029678	1.38	0.42	2.18	1.00
B.02.2	B.02.2	284.51	Tr050	0.39	472.34	472.52	472.52	472.60	0.031346	1.24	0.32	2.03	1.00
B.02.2	B.02.2	284.51	Tr100	0.48	472.34	472.54	472.54	472.63	0.030291	1.31	0.37	2.11	1.00
B.02.2	B.02.2	284.51	Tr500	0.70	472.34	472.59	472.59	472.70	0.029731	1.46	0.48	2.26	1.02
B.02.2	B.02.2	270.59	Tr200	0.58	471.42	471.50	471.54	471.66	0.356151	1.77	0.33	7.99	2.80
B.02.2	B.02.2	270.59	Tr050	0.39	471.42	471.49	471.53	471.61	0.286873	1.48	0.26	7.17	2.46
B.02.2	B.02.2	270.59	Tr100	0.48	471.42	471.50	471.53	471.64	0.333125	1.65	0.29	7.54	2.68
B.02.2	B.02.2	270.59	Tr500	0.70	471.42	471.51	471.55	471.69	0.366653	1.89	0.37	8.50	2.87
B.02.2	B.02.2	260.59	Tr200	0.58	470.51	470.65	470.65	470.69	0.042952	0.89	0.65	9.11	1.07
B.02.2	B.02.2	260.59	Tr050	0.39	470.51	470.63	470.63	470.66	0.045061	0.86	0.45	6.93	1.07
B.02.2	B.02.2	260.59	Tr100	0.48	470.51	470.64	470.64	470.68	0.043488	0.87	0.55	8.10	1.06





River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
B.02.2	B.02.2	50.59	Tr200	0.58	451.99	452.14	452.14	452.19	0.036567	1.03	0.56	5.56	1.04
B.02.2	B.02.2	50.59	Tr050	0.39	451.99	452.11	452.11	452.16	0.039569	0.94	0.41	5.03	1.05
B.02.2	B.02.2	50.59	Tr100	0.48	451.99	452.13	452.13	452.17	0.034399	0.96	0.50	5.35	1.00
B.02.2	B.02.2	50.59	Tr500	0.70	451.99	452.16	452.16	452.21	0.032489	1.05	0.67	5.92	1.00
B.02.2	B.02.2	40.59	Tr200	0.58	451.43	451.56	451.59	451.65	0.084924	1.29	0.45	5.99	1.51
B.02.2	B.02.2	40.59	Tr050	0.39	451.43	451.54	451.57	451.61	0.077118	1.12	0.35	5.40	1.40
B.02.2	B.02.2	40.59	Tr100	0.48	451.43	451.55	451.58	451.63	0.095410	1.28	0.38	5.56	1.57
B.02.2	B.02.2	40.59	Tr500	0.70	451.43	451.57	451.60	451.68	0.102309	1.46	0.48	6.17	1.67
B.02.2	B.02.2	30.59	Tr200	0.58	450.47	450.65	450.68	450.77	0.088770	1.51	0.38	4.17	1.59
B.02.2	B.02.2	30.59	Tr050	0.39	450.47	450.63	450.66	450.73	0.099618	1.43	0.27	3.52	1.64
B.02.2	B.02.2	30.59	Tr100	0.48	450.47	450.64	450.67	450.74	0.082526	1.40	0.34	3.94	1.52
B.02.2	B.02.2	30.59	Tr500	0.70	450.47	450.67	450.72	450.79	0.076859	1.50	0.47	4.60	1.51
B.02.2	B.02.2	20.59	Tr200	0.58	450.16	450.39	450.38	450.44	0.027348	1.02	0.57	4.67	0.93
B.02.2	B.02.2	20.59	Tr050	0.39	450.16	450.36	450.35	450.40	0.026712	0.91	0.43	4.08	0.89
B.02.2	B.02.2	20.59	Tr100	0.48	450.16	450.37	450.37	450.42	0.027440	0.97	0.50	4.37	0.92
B.02.2	B.02.2	20.59	Tr500	0.70	450.16	450.41	450.40	450.47	0.027996	1.07	0.65	4.97	0.95
B.02.2	B.02.2	10.59	Tr200	0.58	450.00	450.13	450.12	450.17	0.026478	0.86	0.68	6.94	0.88
B.02.2	B.02.2	10.59	Tr050	0.39	450.00	450.11	450.10	450.14	0.024441	0.73	0.53	6.54	0.82
B.02.2	B.02.2	10.59	Tr100	0.48	450.00	450.12	450.11	450.16	0.025220	0.79	0.60	6.74	0.85
B.02.2	B.02.2	10.59	Tr500	0.70	450.00	450.15	450.15	450.19	0.026313	0.91	0.77	7.19	0.89
B.02.2	B.02.2	0.59	Tr200	0.58	449.69	449.87		449.91	0.027297	0.87	0.67	6.85	0.89
B.02.2	B.02.2	0.59	Tr050	0.39	449.69	449.84		449.87	0.028581	0.80	0.49	5.88	0.89
B.02.2	B.02.2	0.59	Tr100	0.48	449.69	449.86		449.89	0.027863	0.84	0.57	6.37	0.89
B.02.2	B.02.2	0.59	Tr500	0.70	449.69	449.84	449.88	449.95	0.095601	1.46	0.48	5.84	1.63
B.02.2	B.02.2	0	Tr200	0.58	449.65	449.84	449.84	449.88	0.034445	0.96	0.61	6.46	1.00
B.02.2	B.02.2	0	Tr050	0.39	449.65	449.81	449.81	449.85	0.038868	0.91	0.43	5.44	1.03
B.02.2	B.02.2	0	Tr100	0.48	449.65	449.82	449.82	449.87	0.035577	0.92	0.52	5.98	1.00
B.02.2	B.02.2	0	Tr500	0.70	449.65	449.84	449.85	449.91	0.050600	1.16	0.60	6.45	1.21
B.02.1	B.02.1	363.99	Tr200	1.15	493.85	494.00	494.02	494.08	0.103878	1.32	0.87	13.04	1.64
B.02.1	B.02.1	363.99	Tr050	0.80	493.85	493.98	494.00	494.05	0.103902	1.21	0.66	11.26	1.60
B.02.1	B.02.1	363.99	Tr100	0.97	493.85	493.99	494.01	494.07	0.103933	1.27	0.76	12.18	1.62
B.02.1	B.02.1	363.99	Tr500	1.37	493.85	494.00	494.04	494.11	0.104018	1.42	0.97	13.63	1.67
B.02.1	B.02.1	353.99	Tr200	1.15	491.99	492.09	492.17	492.40	0.308579	2.46	0.47	6.27	2.88
B.02.1	B.02.1	353.99	Tr050	0.80	491.99	492.07	492.14	492.33	0.326046	2.24	0.36	5.72	2.87
B.02.1	B.02.1	353.99	Tr100	0.97	491.99	492.08	492.16	492.37	0.314398	2.35	0.41	5.98	2.86
B.02.1	B.02.1	353.99	Tr500	1.37	491.99	492.10	492.19	492.45	0.293775	2.60	0.53	6.76	2.86
B.02.1	B.02.1	343.99	Tr200	1.15	491.34	491.51	491.51	491.55	0.040749	0.91	1.26	16.44	1.05
B.02.1	B.02.1	343.99	Tr050	0.80	491.34	491.49	491.49	491.53	0.039742	0.83	0.97	14.29	1.02
B.02.1	B.02.1	343.99	Tr100	0.97	491.34	491.43	491.50	491.96	1.183481	3.21	0.30	7.44	5.09
B.02.1	B.02.1	343.99	Tr500	1.37	491.34	491.52	491.52	491.57	0.036280	0.94	1.46	17.56	1.01
B.02.1	B.02.1	331.65	Tr200	1.15	489.50	489.80	489.80	489.93	0.022944	1.61	0.74	2.91	0.96
B.02.1	B.02.1	331.65	Tr050	0.80	489.50	489.74	489.74	489.84	0.026432	1.46	0.56	2.71	0.99
B.02.1	B.02.1	331.65	Tr100	0.97	489.50	489.77	489.77	489.89	0.023852	1.53	0.65	2.82	0.96
B.02.1	B.02.1	331.65	Tr500	1.37	489.50	489.83	489.83	489.98	0.021851	1.70	0.84	3.02	0.96
B.02.1	B.02.1	321.65	Tr200	1.15	488.36	488.49	488.66	489.27	0.419770	3.91	0.29	2.40	3.57
B.02.1	B.02.1	321.65	Tr050	0.80	488.36	488.46	488.59	489.10	0.460252	3.53	0.23	2.32	3.61
B.02.1	B.02.1	321.65	Tr100	0.97	488.36	488.48	488.63	489.20	0.445721	3.75	0.26	2.36	3.61
B.02.1	B.02.1	321.65	Tr500	1.37	488.36	488.51	488.69	489.34	0.381155	4.03	0.34	2.46	3.46
B.02.1	B.02.1	311.65	Tr200	1.15	487.22	487.44	487.52	487.69	0.070169	2.23	0.52	2.67	1.58
B.02.1	B.02.1	311.65	Tr050	0.80	487.22	487.41	487.46	487.59	0.065204	1.88	0.42	2.56	1.47
B.02.1	B.02.1	311.65	Tr100	0.97	487.22	487.42	487.49	487.64	0.067669	2.06	0.47	2.61	1.53
B.02.1	B.02.1	311.65	Tr500	1.37	487.22	487.46	487.55	487.76	0.073003	2.41	0.57	2.73	1.63
B.02.1	B.02.1	301.65	Tr200	1.15	486.08	486.26	486.38	486.67	0.157050	2.84	0.41	2.54	2.27
B.02.1	B.02.1	301.65	Tr050	0.80	486.08	486.22	486.32	486.56	0.175116	2.59	0.31	2.42	2.32
B.02.1	B.02.1	301.65	Tr100	0.97	486.08	486.24	486.35	486.62	0.164899	2.72	0.36	2.48	2.29
B.02.1	B.02.1	301.65	Tr500	1.37	486.08	486.28	486.41	486.73	0.149981	2.97	0.46	2.60	2.25
B.02.1	B.02.1	291.65	Tr200	1.15	484.94	485.15	485.24	485.44	0.092974	2.41	0.48	2.62	1.78
B.02.1	B.02.1	291.65	Tr050	0.80	484.94	485.11	485.18	485.33	0.086732	2.06	0.39	2.52	1.68
B.02.1	B.02.1	291.65	Tr100	0.97	484.94	485.13	485.21	485.38	0.090539	2.23	0.43	2.57	1.73
B.02.1	B.02.1	291.65	Tr500	1.37	484.94	485.17	485.27	485.51	0.096249	2.61	0.53	2.68	1.84
B.02.1	B.02.1	281.65	Tr200	1.15	483.80	483.99	484.10	484.35	0.128283	2.65	0.43	2.57	2.06
B.02.1	B.02.1	281.65	Tr050	0.80	483.80	483.95	484.04	484.24	0.139618	2.41	0.33	2.45	2.09
B.02.1	B.02.1	281.65	Tr100	0.97	483.80	483.97	484.07	484.29	0.131042	2.52	0.38	2.51	2.06
B.02.1	B.02.1	281.65	Tr500	1.37	483.80	484.01	484.13	484.41	0.124819	2.81	0.49	2.63	2.07
B.02.1	B.02.1	271.65	Tr200	1.15	482.66	482.86	482.96	483.18	0.104960	2.49	0.46	2.60	1.88
B.02.1	B.02.1	271.65	Tr050	0.80	482.66	482.83	482.90	483.06	0.098711	2.15	0.37	2.50	1.78
B.02.1	B.02.1	271.65	Tr100	0.97	482.66	482.84	482.92	483.12	0.103273	2.33	0.42	2.55	1.84
B.02.1	B.02.1	271.65	Tr500	1.37	482.66	482.88	482.99	483.25	0.107016	2.69	0.51	2.66	1.93
B.02.1	B.02.1	262.79	Tr200	1.15	481.65	481.84	481.95	482.19	0.119182	2.59	0.44	2.58	2.00
B.02.1	B.02.1	262.79	Tr050	0.80	481.65	481.80	481.89	482.08	0.124199	2.32	0.35	2.46	1.98

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
B.02.1	B.02.1	262.79	Tr100	0.97	481.65	481.83	481.92	482.13	0.120180	2.45	0.40	2.52	1.98
B.02.1	B.02.1	262.79	Tr500	1.37	481.65	481.86	481.98	482.25	0.117926	2.76	0.50	2.64	2.02
B.02.1	B.02.1	261.79	Tr200	1.15	477.89	477.96	478.21	481.51	4.345325	8.35	0.14	2.06	10.31
B.02.1	B.02.1	261.79	Tr050	0.80	477.89	477.94	478.14	481.38	6.519298	8.22	0.10	2.04	12.03
B.02.1	B.02.1	261.79	Tr100	0.97	477.89	477.95	478.17	481.45	5.250384	8.29	0.12	2.05	11.08
B.02.1	B.02.1	261.79	Tr500	1.37	477.89	477.97	478.25	481.58	3.541200	8.42	0.16	2.07	9.56
B.02.1	B.02.1	242		Culvert									
B.02.1	B.02.1	241.91	Tr200	1.15	476.89	477.06	477.19	477.50	0.169399	2.91	0.40	2.52	2.35
B.02.1	B.02.1	241.91	Tr050	0.80	476.89	477.03	477.13	477.36	0.164454	2.54	0.32	2.43	2.25
B.02.1	B.02.1	241.91	Tr100	0.97	476.89	477.05	477.16	477.42	0.156499	2.67	0.36	2.49	2.23
B.02.1	B.02.1	241.91	Tr500	1.37	476.89	477.08	477.22	477.58	0.168809	3.12	0.44	2.58	2.39
B.02.1	B.02.1	231.65	Tr200	1.15	476.38	476.67	476.68	476.81	0.029589	1.62	0.71	2.87	1.05
B.02.1	B.02.1	231.65	Tr050	0.80	476.38	476.61	476.62	476.72	0.034198	1.52	0.53	2.68	1.09
B.02.1	B.02.1	231.65	Tr100	0.97	476.38	476.65	476.65	476.76	0.028858	1.53	0.64	2.80	1.02
B.02.1	B.02.1	231.65	Tr500	1.37	476.38	476.69	476.71	476.85	0.031092	1.77	0.78	2.94	1.09
B.02.1	B.02.1	221.65	Tr200	1.15	475.88	476.10	476.18	476.35	0.075849	2.23	0.52	2.66	1.62
B.02.1	B.02.1	221.65	Tr050	0.80	475.88	476.07	476.12	476.25	0.065959	1.88	0.42	2.56	1.48
B.02.1	B.02.1	221.65	Tr100	0.97	475.88	476.08	476.15	476.31	0.077111	2.12	0.46	2.60	1.61
B.02.1	B.02.1	221.65	Tr500	1.37	475.88	476.13	476.21	476.40	0.067244	2.30	0.60	2.75	1.56
B.02.1	B.02.1	211.65	Tr200	1.15	475.38	475.65	475.68	475.81	0.036580	1.75	0.66	2.82	1.15
B.02.1	B.02.1	211.65	Tr050	0.80	475.38	475.59	475.62	475.73	0.040953	1.61	0.50	2.64	1.18
B.02.1	B.02.1	211.65	Tr100	0.97	475.38	475.63	475.65	475.77	0.037178	1.66	0.58	2.74	1.15
B.02.1	B.02.1	211.65	Tr500	1.37	475.38	475.67	475.71	475.86	0.040081	1.93	0.71	2.87	1.22
B.02.1	B.02.1	201.65	Tr200	1.15	474.88	475.12	475.18	475.33	0.060304	2.07	0.56	2.71	1.46
B.02.1	B.02.1	201.65	Tr050	0.80	474.88	475.07	475.12	475.24	0.057570	1.80	0.44	2.58	1.39
B.02.1	B.02.1	201.65	Tr100	0.97	474.88	475.09	475.15	475.29	0.060899	1.96	0.50	2.64	1.44
B.02.1	B.02.1	201.65	Tr500	1.37	474.88	475.15	475.21	475.38	0.055558	2.16	0.64	2.79	1.43
B.02.1	B.02.1	191.65	Tr200	1.15	474.38	474.53	474.56	474.63	0.071562	1.42	0.81	8.18	1.44
B.02.1	B.02.1	191.65	Tr050	0.80	474.38	474.51	474.53	474.59	0.066384	1.22	0.65	7.80	1.35
B.02.1	B.02.1	191.65	Tr100	0.97	474.38	474.52	474.55	474.61	0.067786	1.32	0.74	8.01	1.39
B.02.1	B.02.1	191.65	Tr500	1.37	474.38	474.54	474.58	474.67	0.085467	1.60	0.86	8.29	1.59
B.02.1	B.02.1	189.95	Tr200	1.15	474.00	474.12	474.20	474.42	0.212224	2.41	0.48	4.97	2.48
B.02.1	B.02.1	189.95	Tr050	0.80	474.00	474.09	474.16	474.37	0.265662	2.32	0.35	4.52	2.68
B.02.1	B.02.1	189.95	Tr100	0.97	474.00	474.11	474.18	474.39	0.237218	2.37	0.41	4.74	2.58
B.02.1	B.02.1	189.95	Tr500	1.37	474.00	474.14	474.22	474.44	0.179829	2.46	0.56	5.23	2.35
B.02.1	B.02.1	179.95	Tr200	1.15	473.62	473.73	473.73	473.77	0.049591	0.92	1.25	18.75	1.13
B.02.1	B.02.1	179.95	Tr050	0.80	473.62	473.72	473.72	473.75	0.028309	0.67	1.19	18.46	0.85
B.02.1	B.02.1	179.95	Tr100	0.97	473.62	473.73	473.73	473.76	0.030343	0.74	1.32	19.01	0.89
B.02.1	B.02.1	179.95	Tr500	1.37	473.62	473.74	473.74	473.78	0.036358	0.89	1.54	19.91	1.00
B.02.1	B.02.1	169.95	Tr200	1.15	470.12	470.18	470.31	471.98	4.238913	5.94	0.19	4.96	9.58
B.02.1	B.02.1	169.95	Tr050	0.80	470.12	470.17	470.28	472.51	8.992536	6.78	0.12	4.34	13.12
B.02.1	B.02.1	169.95	Tr100	0.97	470.12	470.17	470.30	472.46	7.484015	6.71	0.14	4.71	12.22
B.02.1	B.02.1	169.95	Tr500	1.37	470.12	470.18	470.33	472.35	4.564325	6.52	0.21	5.05	10.08
B.02.1	B.02.1	159.95	Tr200	1.15	468.97	469.13	469.15	469.22	0.071690	1.38	0.83	8.87	1.44
B.02.1	B.02.1	159.95	Tr050	0.80	468.97	469.10	469.12	469.19	0.079020	1.29	0.62	7.91	1.47
B.02.1	B.02.1	159.95	Tr100	0.97	468.97	469.11	469.15	469.21	0.079010	1.36	0.71	8.37	1.49
B.02.1	B.02.1	159.95	Tr500	1.37	468.97	469.13	469.18	469.25	0.079191	1.53	0.90	9.08	1.53
B.02.1	B.02.1	149.95	Tr200	1.15	467.40	467.51	467.58	467.81	0.373674	2.43	0.47	7.47	3.08
B.02.1	B.02.1	149.95	Tr050	0.80	467.40	467.50	467.55	467.72	0.347213	2.10	0.38	7.05	2.89
B.02.1	B.02.1	149.95	Tr100	0.97	467.40	467.50	467.57	467.76	0.336782	2.22	0.44	7.31	2.90
B.02.1	B.02.1	149.95	Tr500	1.37	467.40	467.52	467.60	467.83	0.313088	2.47	0.56	7.79	2.89
B.02.1	B.02.1	139.95	Tr200	1.15	465.51	465.74	465.84	466.04	0.101995	2.41	0.48	2.78	1.86
B.02.1	B.02.1	139.95	Tr050	0.80	465.51	465.70	465.78	465.95	0.106721	2.18	0.37	2.57	1.85
B.02.1	B.02.1	139.95	Tr100	0.97	465.51	465.72	465.81	466.00	0.106854	2.32	0.42	2.67	1.87
B.02.1	B.02.1	139.95	Tr500	1.37	465.51	465.76	465.87	466.11	0.107215	2.63	0.52	2.86	1.93
B.02.1	B.02.1	129.95	Tr200	1.15	464.89	465.10	465.13	465.20	0.060577	1.39	0.83	7.74	1.35
B.02.1	B.02.1	129.95	Tr050	0.80	464.89	465.08	465.10	465.16	0.054409	1.22	0.66	6.90	1.26
B.02.1	B.02.1	129.95	Tr100	0.97	464.89	465.09	465.11	465.18	0.057291	1.30	0.75	7.34	1.30
B.02.1	B.02.1	129.95	Tr500	1.37	464.89	465.11	465.15	465.23	0.062930	1.50	0.91	8.12	1.40
B.02.1	B.02.1	119.95	Tr200	1.15	463.92	464.03	464.08	464.17	0.208600	1.67	0.69	12.25	2.25
B.02.1	B.02.1	119.95	Tr050	0.80	463.92	464.02	464.04	464.14	0.252940	1.59	0.50	11.21	2.39
B.02.1	B.02.1	119.95	Tr100	0.97	463.92	464.02	464.06	464.16	0.226466	1.63	0.60	11.74	2.31
B.02.1	B.02.1	119.95	Tr500	1.37	463.92	464.04	464.09	464.20	0.196075	1.75	0.78	12.76	2.23
B.02.1	B.02.1	109.95	Tr200	1.15	463.10	463.47	463.47	463.52	0.040476	1.06	1.08	11.10	1.08
B.02.1	B.02.1	109.95	Tr050	0.80	463.10	463.34	463.44	463.90	0.658426	3.30	0.24	3.63	4.07
B.02.1	B.02.1	109.95	Tr100	0.97	463.10	463.46	463.46	463.51	0.035666	0.99	0.98	10.16	1.02
B.02.1	B.02.1	109.95	Tr500	1.37	463.10	463.48	463.48	463.54	0.042324	1.14	1.21	12.14	1.12
B.02.1	B.02.1	99.95	Tr200	1.15	461.95	462.07	462.17	462.53	0.429640	3.00	0.38	4.95	3.42
B.02.1	B.02.1	99.95	Tr050	0.80	461.95	462.10	462.14	462.21	0.067613	1.48	0.56	6.25	1.43

River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
B.02.1	B.02.1	99.95	Tr100	0.97	461.95	462.06	462.15	462.55	0.560199	3.10	0.31	4.65	3.81
B.02.1	B.02.1	99.95	Tr500	1.37	461.95	462.09	462.19	462.56	0.359481	3.05	0.46	5.89	3.21
B.02.1	B.02.1	89.95	Tr200	1.15	460.53	460.76	460.80	460.89	0.078414	1.65	0.70	6.08	1.56
B.02.1	B.02.1	89.95	Tr050	0.80	460.53	460.69	460.76	460.98	0.278696	2.39	0.33	4.33	2.75
B.02.1	B.02.1	89.95	Tr100	0.97	460.53	460.75	460.78	460.86	0.072233	1.53	0.63	5.82	1.48
B.02.1	B.02.1	89.95	Tr500	1.37	460.53	460.77	460.82	460.93	0.084553	1.81	0.76	6.33	1.64
B.02.1	B.02.1	79.95	Tr200	1.15	459.71	459.86	459.88	459.95	0.109287	1.34	0.86	13.23	1.68
B.02.1	B.02.1	79.95	Tr050	0.80	459.71	459.86	459.87	459.90	0.050458	0.92	0.87	13.35	1.14
B.02.1	B.02.1	79.95	Tr100	0.97	459.71	459.85	459.88	459.94	0.118982	1.34	0.72	11.84	1.73
B.02.1	B.02.1	79.95	Tr500	1.37	459.71	459.87	459.91	459.97	0.105273	1.42	0.97	14.29	1.68
B.02.1	B.02.1	69.95	Tr200	1.15	458.96	459.16	459.17	459.23	0.050870	1.19	0.96	9.86	1.22
B.02.1	B.02.1	69.95	Tr050	0.80	458.96	459.11	459.14	459.21	0.101371	1.41	0.57	7.56	1.65
B.02.1	B.02.1	69.95	Tr100	0.97	458.96	459.15	459.17	459.21	0.048741	1.13	0.86	9.33	1.18
B.02.1	B.02.1	69.95	Tr500	1.37	458.96	459.17	459.19	459.25	0.052616	1.29	1.06	10.36	1.26
B.02.1	B.02.1	59.95	Tr200	1.15	458.11	458.27	458.32	458.42	0.146800	1.70	0.68	9.13	1.98
B.02.1	B.02.1	59.95	Tr050	0.80	458.11	458.27	458.28	458.34	0.074407	1.20	0.67	9.05	1.41
B.02.1	B.02.1	59.95	Tr100	0.97	458.11	458.26	458.30	458.40	0.158324	1.67	0.58	8.37	2.03
B.02.1	B.02.1	59.95	Tr500	1.37	458.11	458.28	458.34	458.44	0.135575	1.78	0.77	9.82	1.95
B.02.1	B.02.1	49.95	Tr200	1.15	457.42	457.62	457.63	457.70	0.040266	1.29	0.89	6.81	1.14
B.02.1	B.02.1	49.95	Tr050	0.80	457.42	457.57	457.60	457.66	0.061475	1.33	0.60	6.05	1.35
B.02.1	B.02.1	49.95	Tr100	0.97	457.42	457.61	457.62	457.68	0.039305	1.21	0.80	6.58	1.11
B.02.1	B.02.1	49.95	Tr500	1.37	457.42	457.63	457.65	457.73	0.042382	1.40	0.98	7.02	1.19
B.02.1	B.02.1	39.95	Tr200	1.15	456.81	456.92	456.94	457.01	0.146878	1.34	0.86	16.27	1.87
B.02.1	B.02.1	39.95	Tr050	0.80	456.81	456.92	456.92	456.96	0.075721	0.95	0.84	16.26	1.74
B.02.1	B.02.1	39.95	Tr100	0.97	456.81	456.91	456.94	456.99	0.149082	1.26	0.77	16.18	1.85
B.02.1	B.02.1	39.95	Tr500	1.37	456.81	456.92	456.95	457.03	0.139516	1.42	0.97	16.38	1.86
B.02.1	B.02.1	29.95	Tr200	1.15	456.18	456.34	456.34	456.39	0.032972	1.10	1.18	13.41	1.02
B.02.1	B.02.1	29.95	Tr050	0.80	456.18	456.31	456.32	456.36	0.048991	1.11	0.80	12.11	1.18
B.02.1	B.02.1	29.95	Tr100	0.97	456.18	456.33	456.33	456.38	0.032819	1.04	1.05	13.01	1.00
B.02.1	B.02.1	29.95	Tr500	1.37	456.18	456.35	456.36	456.41	0.033692	1.18	1.33	13.84	1.04
B.01	B.01	909.1	Tr200	17.06	485.67	486.43	486.70	487.29	0.068809	4.11	4.15	8.34	1.84
B.01	B.01	909.1	Tr050	12.16	485.67	486.33	486.54	487.01	0.068844	3.64	3.34	7.88	1.79
B.01	B.01	909.1	Tr100	14.56	485.67	486.38	486.61	487.15	0.068937	3.87	3.77	8.13	1.81
B.01	B.01	909.1	Tr500	20.44	485.67	486.49	486.80	487.48	0.068868	4.42	4.64	8.60	1.87
B.01	B.01	899.1	Tr200	17.06	485.33	486.20	486.32	486.67	0.038415	3.03	5.64	11.76	1.38
B.01	B.01	899.1	Tr050	12.16	485.33	486.13	486.19	486.45	0.031677	2.52	4.82	11.20	1.23
B.01	B.01	899.1	Tr100	14.56	485.33	486.17	486.25	486.56	0.034492	2.75	5.29	11.52	1.29
B.01	B.01	899.1	Tr500	20.44	485.33	486.23	486.40	486.82	0.044295	3.40	6.04	12.02	1.50
B.01	B.01	889.11	Tr200	17.06	484.97	485.90	485.99	486.30	0.032371	2.79	6.14	13.04	1.27
B.01	B.01	889.11	Tr050	12.16	484.97	485.78	485.87	486.12	0.035120	2.58	4.72	11.46	1.28
B.01	B.01	889.11	Tr100	14.56	484.97	485.84	485.92	486.21	0.035057	2.69	5.40	12.25	1.30
B.01	B.01	889.11	Tr500	20.44	484.97	485.96	486.07	486.41	0.031465	2.97	6.95	13.87	1.27
B.01	B.01	879.11	Tr200	17.06	484.00	484.56	484.87	485.66	0.124227	4.64	3.68	9.85	2.38
B.01	B.01	879.11	Tr050	12.16	484.00	484.46	484.73	485.43	0.146889	4.34	2.80	9.04	2.49
B.01	B.01	879.11	Tr100	14.56	484.00	484.51	484.80	485.53	0.134960	4.47	3.26	9.47	2.43
B.01	B.01	879.11	Tr500	20.44	484.00	484.62	484.96	485.80	0.111162	4.83	4.27	10.35	2.31
B.01	B.01	869.1	Tr200	17.06	483.37	484.12	484.28	484.65	0.060442	3.21	5.31	14.24	1.66
B.01	B.01	869.1	Tr050	12.16	483.37	484.07	484.17	484.44	0.051369	2.71	4.49	13.51	1.50
B.01	B.01	869.1	Tr100	14.56	483.37	484.10	484.23	484.54	0.055467	2.94	4.95	13.92	1.58
B.01	B.01	869.1	Tr500	20.44	483.37	484.16	484.35	484.80	0.065758	3.54	5.79	14.63	1.76
B.01	B.01	859.11	Tr200	17.06	482.62	483.33	483.53	483.95	0.079782	3.49	4.90	14.65	1.88
B.01	B.01	859.11	Tr050	12.16	482.62	483.25	483.41	483.77	0.084863	3.17	3.84	13.30	1.88
B.01	B.01	859.11	Tr100	14.56	482.62	483.29	483.47	483.86	0.083277	3.32	4.39	14.02	1.89
B.01	B.01	859.11	Tr500	20.44	482.62	483.37	483.61	484.08	0.078257	3.72	5.53	15.40	1.90
B.01	B.01	849.11	Tr200	17.06	481.99	482.61	482.80	483.19	0.069229	3.39	5.03	14.03	1.77
B.01	B.01	849.11	Tr050	12.16	481.99	482.53	482.67	483.00	0.068953	3.03	4.01	12.67	1.72
B.01	B.01	849.11	Tr100	14.56	481.99	482.57	482.74	483.09	0.068347	3.17	4.59	13.45	1.74
B.01	B.01	849.11	Tr500	20.44	481.99	482.65	482.87	483.33	0.069533	3.65	5.64	14.78	1.81
B.01	B.01	839.1	Tr200	17.06	481.29	482.22	482.31	482.55	0.047668	2.55	6.71	21.23	1.43
B.01	B.01	839.1	Tr050	12.16	481.29	482.17	482.23	482.41	0.041202	2.15	5.66	20.32	1.30
B.01	B.01	839.1	Tr100	14.56	481.29	482.20	482.27	482.48	0.044101	2.33	6.24	20.82	1.36
B.01	B.01	839.1	Tr500	20.44	481.29	482.25	482.36	482.65	0.052024	2.81	7.30	21.72	1.52
B.01	B.01	829.1	Tr200	17.06	480.64	481.44	481.60	481.97	0.065904	3.24	5.28	14.67	1.71
B.01	B.01	829.1	Tr050	12.16	480.64	481.35	481.49	481.82	0.081995	3.04	4.00	14.08	1.82
B.01	B.01	829.1	Tr100	14.56	480.64	481.40	481.55	481.90	0.072820	3.13	4.65	14.39	1.76
B.01	B.01	829.1	Tr500	20.44	480.64	481.49	481.67	482.08	0.060008	3.38	6.07	15.02	1.67
B.01	B.01	819.1	Tr200	17.06	480.43	480.89	481.01	481.28	0.064955	2.76	6.18	21.63	1.65
B.01	B.01	819.1	Tr050	12.16	480.43	480.85	480.92	481.11	0.052147	2.26	5.37	21.38	1.44
B.01	B.01	819.1	Tr100	14.56	480.43	480.87	480.96	481.19	0.057804	2.50	5.82	21.52	1.54
B.01	B.01	819.1	Tr500	20.44	480.43	480.92	481.05	481.39	0.070565	3.04	6.72	21.79	1.74

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
B.01	B.01	809.1	Tr200	17.06	480.15	480.61	480.63	480.81	0.027867	1.97	8.64	26.66	1.10
B.01	B.01	809.1	Tr050	12.16	480.15	480.54	480.56	480.70	0.030272	1.77	6.86	26.25	1.11
B.01	B.01	809.1	Tr100	14.56	480.15	480.58	480.60	480.76	0.029426	1.88	7.73	26.45	1.11
B.01	B.01	809.1	Tr500	20.44	480.15	480.64	480.68	480.88	0.029930	2.17	9.44	26.84	1.16
B.01	B.01	799.1	Tr200	17.06	479.93	480.38	480.41	480.58	0.028309	2.00	8.57	26.95	1.11
B.01	B.01	799.1	Tr050	12.16	479.93	480.28	480.33	480.50	0.047938	2.08	5.84	24.78	1.37
B.01	B.01	799.1	Tr100	14.56	479.93	480.33	480.37	480.54	0.037160	2.03	7.16	26.01	1.24
B.01	B.01	799.1	Tr500	20.44	479.93	480.42	480.45	480.65	0.027272	2.12	9.70	27.69	1.11
B.01	B.01	789.1	Tr200	17.06	479.49	479.89	479.97	480.19	0.051550	2.44	6.99	25.00	1.47
B.01	B.01	789.1	Tr050	12.16	479.49	479.86	479.90	480.05	0.038914	1.97	6.18	24.45	1.25
B.01	B.01	789.1	Tr100	14.56	479.49	479.87	479.93	480.12	0.046125	2.22	6.57	24.72	1.37
B.01	B.01	789.1	Tr500	20.44	479.49	479.92	480.02	480.27	0.052224	2.63	7.78	25.58	1.50
B.01	B.01	779.1	Tr200	17.06	479.29	479.66	479.69	479.86	0.029391	1.99	8.56	27.39	1.13
B.01	B.01	779.1	Tr050	12.16	479.29	479.60	479.62	479.76	0.030413	1.77	6.88	26.58	1.11
B.01	B.01	779.1	Tr100	14.56	479.29	479.62	479.65	479.81	0.033219	1.94	7.50	26.88	1.17
B.01	B.01	779.1	Tr500	20.44	479.29	479.71	479.73	479.92	0.024538	2.03	10.11	28.11	1.06
B.01	B.01	769.1	Tr200	17.06	478.84	479.52	479.42	479.63	0.010370	1.49	11.50	26.36	0.71
B.01	B.01	769.1	Tr050	12.16	478.84	479.42	479.34	479.51	0.011635	1.36	8.91	24.59	0.72
B.01	B.01	769.1	Tr100	14.56	478.84	479.47	479.38	479.57	0.010877	1.42	10.29	25.53	0.71
B.01	B.01	769.1	Tr500	20.44	478.84	479.58	479.47	479.70	0.009710	1.57	13.14	27.61	0.70
B.01	B.01	759.1	Tr200	17.06	478.59	479.26	479.26	479.48	0.020603	2.06	8.31	20.17	0.99
B.01	B.01	759.1	Tr050	12.16	478.59	479.16	479.16	479.34	0.022315	1.91	6.36	17.18	1.00
B.01	B.01	759.1	Tr100	14.56	478.59	479.21	479.21	479.41	0.022154	1.98	7.36	18.77	1.01
B.01	B.01	759.1	Tr500	20.44	478.59	479.32	479.32	479.56	0.019342	2.17	9.55	21.86	0.98
B.01	B.01	749.1	Tr200	17.06	478.02	478.79	478.90	479.17	0.045550	2.73	6.26	17.74	1.43
B.01	B.01	749.1	Tr050	12.16	478.02	478.72	478.80	479.02	0.045579	2.45	4.96	15.77	1.40
B.01	B.01	749.1	Tr100	14.56	478.02	478.76	478.85	479.09	0.045252	2.56	5.69	16.91	1.41
B.01	B.01	749.1	Tr500	20.44	478.02	478.85	478.96	479.26	0.042102	2.86	7.21	19.04	1.41
B.01	B.01	739.1	Tr200	17.06	477.85	478.54	478.57	478.76	0.029819	2.08	8.21	25.20	1.15
B.01	B.01	739.1	Tr050	12.16	477.85	478.49	478.49	478.65	0.025769	1.77	6.85	23.17	1.04
B.01	B.01	739.1	Tr100	14.56	477.85	478.52	478.54	478.70	0.027696	1.91	7.62	24.33	1.09
B.01	B.01	739.1	Tr500	20.44	477.85	478.56	478.62	478.84	0.035320	2.35	8.72	25.93	1.26
B.01	B.01	729.1	Tr200	17.06	477.58	478.04	478.14	478.37	0.051636	2.55	6.76	27.37	1.48
B.01	B.01	729.1	Tr050	12.16	477.58	477.97	478.06	478.25	0.059016	2.36	5.15	21.23	1.53
B.01	B.01	729.1	Tr100	14.56	477.58	478.00	478.11	478.31	0.056064	2.46	5.92	22.06	1.51
B.01	B.01	729.1	Tr500	20.44	477.58	478.39	478.19	478.46	0.004173	1.22	18.02	32.32	0.48
B.01	B.01	719.1	Tr200	17.06	477.02	478.15	477.81	478.21	0.002927	1.05	17.09	34.90	0.40
B.01	B.01	719.1	Tr050	12.16	477.02	477.78	477.70	477.90	0.012670	1.55	7.83	18.81	0.77
B.01	B.01	719.1	Tr100	14.56	477.02	477.97	477.75	478.05	0.006199	1.25	11.62	22.53	0.56
B.01	B.01	719.1	Tr500	20.44	477.02	478.40		478.43	0.001317	0.86	26.02	37.16	0.28
B.01	B.01	709.1	Tr200	17.06	476.71	478.15		478.18	0.001304	0.74	23.70	37.45	0.27
B.01	B.01	709.1	Tr050	12.16	476.71	477.75		477.81	0.004960	1.08	11.27	23.25	0.49
B.01	B.01	709.1	Tr100	14.56	476.71	477.96		477.99	0.002657	0.87	16.81	30.18	0.37
B.01	B.01	709.1	Tr500	20.44	476.71	478.40		478.42	0.000682	0.65	33.16	39.42	0.21
B.01	B.01	699.1	Tr200	17.06	476.65	478.15		478.17	0.000460	0.50	34.61	40.45	0.17
B.01	B.01	699.1	Tr050	12.16	476.65	477.75		477.77	0.001320	0.62	19.47	33.90	0.26
B.01	B.01	699.1	Tr100	14.56	476.65	477.96		477.97	0.000763	0.54	26.84	38.28	0.21
B.01	B.01	699.1	Tr500	20.44	476.65	478.40		478.41	0.000291	0.46	44.78	42.48	0.14
B.01	B.01	679.1	Tr200	17.06	476.00	478.16		478.16	0.000082	0.30	57.36	39.36	0.08
B.01	B.01	679.1	Tr050	12.16	476.00	477.76		477.76	0.000103	0.29	42.65	34.95	0.08
B.01	B.01	679.1	Tr100	14.56	476.00	477.96		477.97	0.000094	0.29	49.91	36.99	0.08
B.01	B.01	679.1	Tr500	20.44	476.00	478.40		478.41	0.000072	0.31	67.37	42.47	0.07
B.01	B.01	669.1	Tr200	17.06	475.82	478.16		478.16	0.000089	0.30	56.77	39.32	0.08
B.01	B.01	669.1	Tr050	12.16	475.82	477.76		477.76	0.000111	0.29	41.86	35.13	0.08
B.01	B.01	669.1	Tr100	14.56	475.82	477.96		477.97	0.000102	0.30	49.22	37.74	0.08
B.01	B.01	669.1	Tr500	20.44	475.82	478.40		478.41	0.000076	0.31	66.58	40.87	0.07
B.01	B.01	659.1	Tr200	17.06	475.73	478.15		478.16	0.000093	0.32	53.00	35.30	0.08
B.01	B.01	659.1	Tr050	12.16	475.73	477.76		477.76	0.000108	0.30	40.09	30.25	0.08
B.01	B.01	659.1	Tr100	14.56	475.73	477.96		477.96	0.000104	0.31	46.40	32.34	0.08
B.01	B.01	659.1	Tr500	20.44	475.73	478.40		478.41	0.000083	0.33	62.08	38.39	0.08
B.01	B.01	649.1	Tr200	17.06	475.41	478.15		478.16	0.000079	0.28	60.25	43.07	0.08
B.01	B.01	649.1	Tr050	12.16	475.41	477.76		477.76	0.000090	0.27	44.36	35.21	0.08
B.01	B.01	649.1	Tr100	14.56	475.41	477.96		477.96	0.000092	0.28	51.96	40.80	0.08
B.01	B.01	649.1	Tr500	20.44	475.41	478.40		478.40	0.000067	0.29	70.98	44.51	0.07
B.01	B.01	639.1	Tr200	17.06	475.07	478.15		478.16	0.000105	0.35	49.25	32.76	0.09
B.01	B.01	639.1	Tr050	12.16	475.07	477.75		477.76	0.000121	0.33	37.32	27.90	0.09
B.01	B.01	639.1	Tr100	14.56	475.07	477.96		477.96	0.000117	0.34	43.15	29.84	0.09
B.01	B.01	639.1	Tr500	20.44	475.07	478.40		478.40	0.000094	0.36	57.75	37.10	0.08
B.01	B.01	629.28	Tr200	17.06	474.89	477.46	477.46	478.09	0.027783	3.52	4.86	4.02	0.99

River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
B.01	B.01	629.28	Tr050	12.16	474.89	477.16	477.16	477.70	0.030974	3.27	3.72	3.50	1.01
B.01	B.01	629.28	Tr100	14.56	474.89	477.32	477.32	477.90	0.029498	3.37	4.32	3.78	1.01
B.01	B.01	629.28	Tr500	20.44	474.89	477.63	477.63	478.33	0.026099	3.71	5.57	4.31	0.98
B.01	B.01	622.47	Tr200	17.06	474.00	474.67	475.16	477.39	0.412702	7.31	2.33	6.97	4.02
B.01	B.01	622.47	Tr050	12.16	474.00	474.58	475.00	476.99	0.444676	6.87	1.77	6.06	4.06
B.01	B.01	622.47	Tr100	14.56	474.00	474.63	475.08	477.20	0.430607	7.10	2.05	6.52	4.04
B.01	B.01	622.47	Tr500	20.44	474.00	474.72	475.26	477.66	0.397865	7.59	2.70	7.52	4.01
B.01	B.01	607.82	Tr200	17.06	472.17	472.92	473.12	473.62	0.132487	3.71	4.60	17.24	2.28
B.01	B.01	607.82	Tr050	12.16	472.17	472.87	473.03	473.40	0.118730	3.23	3.76	15.74	2.11
B.01	B.01	607.82	Tr100	14.56	472.17	472.90	473.07	473.51	0.125585	3.47	4.20	16.47	2.20
B.01	B.01	607.82	Tr500	20.44	472.17	472.95	473.18	473.77	0.141005	4.01	5.10	18.01	2.38
B.01	B.01	593.96	Tr200	17.06	471.40	472.01	472.13	472.40	0.055364	2.75	6.21	20.01	1.55
B.01	B.01	593.96	Tr050	12.16	471.40	471.94	472.03	472.25	0.055278	2.46	4.95	18.19	1.50
B.01	B.01	593.96	Tr100	14.56	471.40	471.98	472.08	472.32	0.055378	2.59	5.63	19.20	1.53
B.01	B.01	593.96	Tr500	20.44	471.40	472.05	472.18	472.49	0.055877	2.97	6.94	20.99	1.58
B.01	B.01	589.11	Tr200	17.06	470.83	471.47	471.65	472.06	0.080982	3.42	5.00	15.55	1.89
B.01	B.01	589.11	Tr050	12.16	470.83	471.39	471.54	471.89	0.088957	3.14	3.87	14.09	1.91
B.01	B.01	589.11	Tr100	14.56	470.83	471.43	471.60	471.97	0.084372	3.25	4.48	14.90	1.89
B.01	B.01	589.11	Tr500	20.44	470.83	471.51	471.72	472.16	0.074117	3.58	5.77	16.47	1.85
B.01	B.01	579.11	Tr200	17.06	469.64	470.30	470.54	471.09	0.113498	3.94	4.33	13.81	2.20
B.01	B.01	579.11	Tr050	12.16	469.64	470.23	470.42	470.87	0.115148	3.54	3.44	12.50	2.16
B.01	B.01	579.11	Tr100	14.56	469.64	470.27	470.48	470.97	0.114304	3.71	3.92	13.22	2.18
B.01	B.01	579.11	Tr500	20.44	469.64	470.34	470.61	471.24	0.111185	4.21	4.89	14.56	2.22
B.01	B.01	569.11	Tr200	17.06	468.77	469.44	469.64	470.08	0.081662	3.53	4.83	14.26	1.91
B.01	B.01	569.11	Tr050	12.16	468.77	469.37	469.53	469.87	0.079993	3.13	3.89	13.13	1.83
B.01	B.01	569.11	Tr100	14.56	468.77	469.41	469.58	469.97	0.081187	3.31	4.39	13.74	1.87
B.01	B.01	569.11	Tr500	20.44	468.77	469.48	469.71	470.22	0.083452	3.82	5.38	14.87	1.96
B.01	B.01	559.11	Tr200	17.06	468.00	468.44	468.65	469.14	0.109966	3.69	4.63	15.75	2.15
B.01	B.01	559.11	Tr050	12.16	468.00	468.38	468.54	468.93	0.110960	3.29	3.70	14.72	2.09
B.01	B.01	559.11	Tr100	14.56	468.00	468.41	468.60	469.03	0.109794	3.47	4.20	15.29	2.11
B.01	B.01	559.11	Tr500	20.44	468.00	468.48	468.71	469.27	0.107214	3.94	5.22	16.37	2.16
B.01	B.01	539.11	Tr200	17.06	466.94	468.04	467.52	468.06	0.001104	0.66	26.00	40.13	0.25
B.01	B.01	539.11	Tr050	12.16	466.94	467.77	467.43	467.80	0.002242	0.74	16.34	32.71	0.34
B.01	B.01	539.11	Tr100	14.56	466.94	467.91	467.48	467.94	0.001561	0.69	21.14	36.23	0.29
B.01	B.01	539.11	Tr500	20.44	466.94	468.21	467.57	468.23	0.000774	0.63	33.20	46.28	0.22
B.01	B.01	529.11	Tr200	17.06	466.47	468.05		468.06	0.000125	0.27	62.85	69.53	0.09
B.01	B.01	529.11	Tr050	12.16	466.47	467.79		467.79	0.000157	0.27	45.85	58.73	0.10
B.01	B.01	529.11	Tr100	14.56	466.47	467.92		467.93	0.000145	0.27	54.30	64.49	0.09
B.01	B.01	529.11	Tr500	20.44	466.47	468.22		468.22	0.000106	0.28	74.55	72.95	0.08
B.01	B.01	509.11	Tr200	17.06	465.10	468.05		468.05	0.000014	0.13	131.68	83.62	0.03
B.01	B.01	509.11	Tr050	12.16	465.10	467.79		467.79	0.000011	0.11	110.99	70.71	0.03
B.01	B.01	509.11	Tr100	14.56	465.10	467.93		467.93	0.000013	0.12	121.22	78.80	0.03
B.01	B.01	509.11	Tr500	20.44	465.10	468.22		468.22	0.000015	0.14	145.45	84.91	0.03
B.01	B.01	499.11	Tr200	17.06	464.99	468.05		468.05	0.000009	0.12	146.21	79.13	0.03
B.01	B.01	499.11	Tr050	12.16	464.99	467.79		467.79	0.000007	0.10	126.26	70.21	0.02
B.01	B.01	499.11	Tr100	14.56	464.99	467.93		467.93	0.000008	0.11	136.25	75.85	0.03
B.01	B.01	499.11	Tr500	20.44	464.99	468.22		468.22	0.000010	0.13	159.20	79.80	0.03
B.01	B.01	489.11	Tr200	17.06	464.82	468.05		468.05	0.000006	0.11	157.06	70.60	0.02
B.01	B.01	489.11	Tr050	12.16	464.82	467.79		467.79	0.000005	0.09	139.14	65.54	0.02
B.01	B.01	489.11	Tr100	14.56	464.82	467.93		467.93	0.000006	0.10	148.26	67.75	0.02
B.01	B.01	489.11	Tr500	20.44	464.82	468.22		468.22	0.000007	0.12	168.86	73.70	0.02
B.01	B.01	479.11	Tr200	17.06	464.70	468.05		468.05	0.000006	0.10	167.33	75.05	0.02
B.01	B.01	479.11	Tr050	12.16	464.70	467.79		467.79	0.000004	0.08	148.23	68.73	0.02
B.01	B.01	479.11	Tr100	14.56	464.70	467.93		467.93	0.000005	0.09	157.89	72.40	0.02
B.01	B.01	479.11	Tr500	20.44	464.70	468.22		468.22	0.000006	0.11	179.67	75.92	0.02
B.01	B.01	469.11	Tr200	17.06	464.49	468.05		468.05	0.000005	0.10	171.02	70.57	0.02
B.01	B.01	469.11	Tr050	12.16	464.49	467.79		467.79	0.000003	0.08	152.79	66.98	0.02
B.01	B.01	469.11	Tr100	14.56	464.49	467.93		467.93	0.000004	0.09	162.10	69.09	0.02
B.01	B.01	469.11	Tr500	20.44	464.49	468.22		468.22	0.000006	0.11	182.64	71.63	0.02
B.01	B.01	459.11	Tr200	17.06	464.64	468.05		468.05	0.000006	0.11	155.27	68.66	0.02
B.01	B.01	459.11	Tr050	12.16	464.64	467.79		467.79	0.000005	0.09	137.36	66.86	0.02
B.01	B.01	459.11	Tr100	14.56	464.64	467.93		467.93	0.000006	0.10	146.57	67.79	0.02
B.01	B.01	459.11	Tr500	20.44	464.64	468.22		468.22	0.000007	0.12	166.58	69.78	0.03
B.01	B.01	449.11	Tr200	17.06	464.85	468.05		468.05	0.000007	0.12	147.50	65.70	0.02
B.01	B.01	449.11	Tr050	12.16	464.85	467.79		467.79	0.000005	0.09	130.58	62.37	0.02
B.01	B.01	449.11	Tr100	14.56	464.85	467.93		467.93	0.000006	0.10	139.23	64.09	0.02
B.01	B.01	449.11	Tr500	20.44	464.85	468.22		468.22	0.000008	0.13	158.40	67.76	0.03
B.01	B.01	439.11	Tr200	17.06	464.88	468.05		468.05	0.000007	0.12	144.22	60.88	0.02
B.01	B.01	439.11	Tr050	12.16	464.88	467.79		467.79	0.000005	0.09	128.36	58.86	0.02
B.01	B.01	439.11	Tr100	14.56	464.88	467.93		467.93	0.000006	0.11	136.52	60.04	0.02

River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
B.01	B.01	439.11	Tr500	20.44	464.88	468.22		468.22	0.000008	0.13	154.29	62.45	0.03
B.01	B.01	418.79	Tr200	17.06	465.04	468.05		468.05	0.000031	0.20	84.60	48.41	0.05
B.01	B.01	418.79	Tr050	12.16	465.04	467.79		467.79	0.000026	0.17	72.09	46.64	0.04
B.01	B.01	418.79	Tr100	14.56	465.04	467.92		467.93	0.000029	0.19	78.51	47.47	0.05
B.01	B.01	418.79	Tr500	20.44	465.04	468.21		468.22	0.000033	0.22	92.60	49.69	0.05
B.01	B.01	409.57	Tr200	17.06	466.20	467.99	467.59	468.05	0.002723	1.06	16.26	23.04	0.39
B.01	B.01	409.57	Tr050	12.16	466.20	467.71	467.20	467.78	0.005214	1.17	10.40	19.04	0.51
B.01	B.01	409.57	Tr100	14.56	466.20	467.86	467.30	467.92	0.003735	1.09	13.35	21.15	0.44
B.01	B.01	409.57	Tr500	20.44	466.20	468.16	467.66	468.21	0.001922	1.01	21.06	29.17	0.34
B.01	B.01	401.12	Tr200	17.06	466.20	467.80	467.41	468.00	0.006033	1.98	8.64	7.80	0.59
B.01	B.01	401.12	Tr050	12.16	466.20	467.57	467.20	467.72	0.005984	1.76	6.90	7.10	0.57
B.01	B.01	401.12	Tr100	14.56	466.20	467.69	467.31	467.87	0.006145	1.87	7.79	7.47	0.58
B.01	B.01	401.12	Tr500	20.44	466.20	467.94	467.54	468.17	0.005882	2.11	9.76	8.22	0.59
B.01	B.01	400	Bridge										
B.01	B.01	386.86	Tr200	17.06	466.20	467.51	467.41	467.86	0.013004	2.63	6.51	6.93	0.85
B.01	B.01	386.86	Tr050	12.16	466.20	467.30	467.20	467.59	0.013751	2.38	5.10	6.30	0.85
B.01	B.01	386.86	Tr100	14.56	466.20	467.40	467.30	467.73	0.014022	2.52	5.77	6.61	0.86
B.01	B.01	386.86	Tr500	20.44	466.20	467.65	467.52	468.03	0.011958	2.75	7.50	7.35	0.83
B.01	B.01	385.83	Tr200	17.06	466.20	467.40	467.40	467.85	0.010240	2.96	5.77	6.61	0.99
B.01	B.01	385.83	Tr050	12.16	466.20	467.20	467.20	467.57	0.010808	2.69	4.52	6.02	0.99
B.01	B.01	385.83	Tr100	14.56	466.20	467.31	467.31	467.71	0.010512	2.80	5.20	6.34	0.99
B.01	B.01	385.83	Tr500	20.44	466.20	467.53	467.52	468.02	0.009574	3.12	6.62	6.98	0.98
B.01	B.01	379	Bridge										
B.01	B.01	378.09	Tr200	17.06	465.12	466.32	466.32	466.77	0.010325	2.97	5.76	6.60	0.99
B.01	B.01	378.09	Tr050	12.16	465.12	466.12	466.12	466.49	0.010877	2.70	4.51	6.00	0.99
B.01	B.01	378.09	Tr100	14.56	465.12	466.23	466.23	466.63	0.010798	2.83	5.15	6.31	1.00
B.01	B.01	378.09	Tr500	20.44	465.12	466.44	466.44	466.94	0.009685	3.13	6.59	6.96	0.98
B.01	B.01	376.39*	Tr200	17.06	464.79	465.68	466.00	466.69	0.031403	4.44	3.86	5.67	1.68
B.01	B.01	376.39*	Tr050	12.16	464.79	465.51	465.79	466.40	0.037674	4.19	2.90	5.14	1.78
B.01	B.01	376.39*	Tr100	14.56	464.79	465.60	465.89	466.54	0.034754	4.29	3.39	5.42	1.73
B.01	B.01	376.39*	Tr500	20.44	464.79	465.80	466.13	466.66	0.027354	4.57	4.52	6.01	1.61
B.01	B.01	374.68*	Tr200	17.06	464.47	465.27	465.67	466.59	0.046447	5.09	3.36	5.40	2.02
B.01	B.01	374.68*	Tr050	12.16	464.47	465.11	465.46	466.29	0.056224	4.82	2.52	4.91	2.15
B.01	B.01	374.68*	Tr100	14.56	464.47	465.19	465.57	466.43	0.051364	4.93	2.95	5.17	2.08
B.01	B.01	374.68*	Tr500	20.44	464.47	465.37	465.81	466.77	0.040321	5.24	3.94	5.71	1.93
B.01	B.01	372.98*	Tr200	17.06	464.14	464.89	465.35	466.47	0.060070	5.57	3.07	5.23	2.28
B.01	B.01	372.98*	Tr050	12.16	464.14	464.74	465.13	466.15	0.072700	5.27	2.31	4.78	2.42
B.01	B.01	372.98*	Tr100	14.56	464.14	464.81	465.24	466.30	0.066884	5.41	2.69	5.02	2.36
B.01	B.01	372.98*	Tr500	20.44	464.14	464.99	465.49	466.66	0.052158	5.74	3.60	5.53	2.18
B.01	B.01	371.27*	Tr200	17.06	463.82	464.52	465.03	466.34	0.073272	5.97	2.86	5.12	2.50
B.01	B.01	371.27*	Tr050	12.16	463.82	464.38	464.81	466.00	0.088166	5.63	2.16	4.69	2.65
B.01	B.01	371.27*	Tr100	14.56	463.82	464.45	464.92	466.16	0.081105	5.78	2.52	4.91	2.58
B.01	B.01	371.27*	Tr500	20.44	463.82	464.61	465.17	466.54	0.064036	6.16	3.35	5.39	2.40
B.01	B.01	369.57	Tr200	17.06	463.49	464.17	464.71	466.18	0.085146	6.29	2.72	5.03	2.68
B.01	B.01	369.57	Tr050	12.16	463.49	464.03	464.48	465.82	0.102070	5.93	2.05	4.62	2.84
B.01	B.01	369.57	Tr100	14.56	463.49	464.10	464.60	466.00	0.094469	6.10	2.39	4.83	2.77
B.01	B.01	369.57	Tr500	20.44	463.49	464.25	464.84	466.40	0.074844	6.50	3.17	5.29	2.58
B.01	B.01	359.57	Tr200	17.06	461.82	462.42	463.04	465.09	0.128160	7.23	2.36	4.82	3.25
B.01	B.01	359.57	Tr050	12.16	461.82	462.31	462.82	464.57	0.143692	6.66	1.82	4.47	3.33
B.01	B.01	359.57	Tr100	14.56	461.82	462.37	462.93	464.82	0.136656	6.93	2.10	4.65	3.29
B.01	B.01	359.57	Tr500	20.44	461.82	462.50	463.17	465.41	0.116860	7.56	2.72	5.04	3.17
B.01	B.01	349.57	Tr200	17.06	461.20	461.88	462.41	463.86	0.083950	6.23	2.74	5.05	2.66
B.01	B.01	349.57	Tr050	12.16	461.20	461.78	462.19	463.30	0.080615	5.46	2.23	4.73	2.54
B.01	B.01	349.57	Tr100	14.56	461.20	461.83	462.31	463.56	0.082278	5.81	2.50	4.90	2.60
B.01	B.01	349.57	Tr500	20.44	461.20	461.94	462.54	464.23	0.084425	6.71	3.06	5.23	2.72
B.01	B.01	339.57	Tr200	17.06	460.89	462.69	462.10	462.82	0.002678	1.64	10.40	10.87	0.52
B.01	B.01	339.57	Tr050	12.16	460.89	462.50	461.89	462.60	0.001814	1.41	8.63	7.74	0.43
B.01	B.01	339.57	Tr100	14.56	460.89	462.60	461.99	462.72	0.002513	1.54	9.48	9.70	0.50
B.01	B.01	339.57	Tr500	20.44	460.89	461.74	462.22	463.35	0.055799	5.62	3.64	5.52	2.21
B.01	B.01	329.57	Tr200	17.06	460.74	462.68		462.80	0.001588	1.49	11.51	9.35	0.41
B.01	B.01	329.57	Tr050	12.16	460.74	462.50		462.58	0.001246	1.22	9.93	8.28	0.36
B.01	B.01	329.57	Tr100	14.56	460.74	462.60		462.69	0.001445	1.36	10.74	8.57	0.39
B.01	B.01	329.57	Tr500	20.44	460.74	462.79	462.07	462.92	0.001771	1.65	12.57	11.29	0.44
B.01	B.01	319.57	Tr200	17.06	460.59	462.71		462.77	0.001090	1.06	16.10	16.93	0.34
B.01	B.01	319.57	Tr050	12.16	460.59	462.51		462.56	0.000940	0.93	13.07	14.09	0.31
B.01	B.01	319.57	Tr100	14.56	460.59	462.61		462.66	0.001055	1.00	14.57	15.41	0.33
B.01	B.01	319.57	Tr500	20.44	460.59	462.82		462.89	0.001100	1.14	18.23	21.91	0.34
B.01	B.01	316.78	Tr200	17.06	460.90	462.41	462.41	462.73	0.019648	2.51	6.83	10.97	0.98

River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
B.01	B.01	316.78	Tr050	12.16	460.90	462.24	462.24	462.52	0.022013	2.36	5.14	9.10	1.00
B.01	B.01	316.78	Tr100	14.56	460.90	462.32	462.32	462.63	0.021115	2.45	5.94	9.72	1.00
B.01	B.01	316.78	Tr500	20.44	460.90	462.51	462.51	462.85	0.018734	2.61	7.97	12.40	0.97
B.01	B.01	306.6	Tr200	17.06	460.00	460.61	460.99	462.14	0.193516	5.48	3.11	8.54	2.87
B.01	B.01	306.6	Tr050	12.16	460.00	460.51	460.85	461.90	0.224800	5.20	2.34	7.59	3.00
B.01	B.01	306.6	Tr100	14.56	460.00	460.56	460.92	462.02	0.210609	5.35	2.72	8.08	2.94
B.01	B.01	306.6	Tr500	20.44	460.00	460.67	461.08	462.29	0.175493	5.64	3.64	9.11	2.78
B.01	B.01	296.6	Tr200	17.06	460.00	461.11	460.92	461.30	0.008389	1.91	8.95	11.97	0.69
B.01	B.01	296.6	Tr050	12.16	460.00	460.92	460.77	461.09	0.009863	1.79	6.78	10.76	0.72
B.01	B.01	296.6	Tr100	14.56	460.00	461.02	460.85	461.20	0.009228	1.85	7.88	11.40	0.71
B.01	B.01	296.6	Tr500	20.44	460.00	461.23	461.02	461.43	0.007549	1.99	10.38	12.61	0.67
B.01	B.01	286.6	Tr200	17.06	459.77	460.79	460.79	461.16	0.018563	2.69	6.35	9.03	1.00
B.01	B.01	286.6	Tr050	12.16	459.77	460.63	460.63	460.94	0.019707	2.44	4.98	8.26	1.00
B.01	B.01	286.6	Tr100	14.56	459.77	460.72	460.72	461.05	0.019312	2.56	5.70	8.67	1.01
B.01	B.01	286.6	Tr500	20.44	459.77	460.89	460.89	461.30	0.017343	2.83	7.28	9.52	0.99
B.01	B.01	276.6	Tr200	17.06	459.34	460.33	460.48	460.89	0.037090	3.32	5.15	9.05	1.38
B.01	B.01	276.6	Tr050	12.16	459.34	460.21	460.32	460.66	0.037337	2.96	4.11	8.28	1.34
B.01	B.01	276.6	Tr100	14.56	459.34	460.28	460.40	460.77	0.037101	3.11	4.68	8.69	1.36
B.01	B.01	276.6	Tr500	20.44	459.34	460.41	460.58	461.04	0.035256	3.51	5.87	9.57	1.37
B.01	B.01	266.6	Tr200	17.06	458.32	459.64	459.89	460.46	0.047097	4.00	4.27	6.60	1.54
B.01	B.01	266.6	Tr050	12.16	458.32	459.48	459.69	460.19	0.052820	3.75	3.24	5.68	1.58
B.01	B.01	266.6	Tr100	14.56	458.32	459.57	459.79	460.32	0.050270	3.84	3.79	6.19	1.57
B.01	B.01	266.6	Tr500	20.44	458.32	459.75	460.02	460.62	0.042095	4.16	4.98	7.16	1.49
B.01	B.01	256.6	Tr200	17.06	458.00	458.77	459.07	459.79	0.092514	4.49	3.81	8.02	2.06
B.01	B.01	256.6	Tr050	12.16	458.00	458.67	458.92	459.49	0.096441	4.01	3.03	7.67	2.04
B.01	B.01	256.6	Tr100	14.56	458.00	458.72	458.99	459.63	0.093776	4.23	3.44	7.86	2.04
B.01	B.01	256.6	Tr500	20.44	458.00	458.83	459.17	460.00	0.090794	4.79	4.28	8.22	2.08
B.01	B.01	246.6	Tr200	17.06	457.64	458.44	458.61	459.06	0.043838	3.50	4.87	8.73	1.49
B.01	B.01	246.6	Tr050	12.16	457.64	458.34	458.46	458.80	0.039711	3.00	4.06	8.42	1.38
B.01	B.01	246.6	Tr100	14.56	457.64	458.39	458.53	458.93	0.041577	3.24	4.50	8.59	1.43
B.01	B.01	246.6	Tr500	20.44	457.64	458.49	458.71	459.24	0.046690	3.84	5.34	8.90	1.56
B.01	B.01	236.6	Tr200	17.06	457.14	457.90	458.10	458.59	0.048496	3.67	4.65	8.46	1.56
B.01	B.01	236.6	Tr050	12.16	457.14	457.79	457.95	458.34	0.051596	3.31	3.67	7.98	1.56
B.01	B.01	236.6	Tr100	14.56	457.14	457.85	458.03	458.47	0.049953	3.48	4.19	8.24	1.56
B.01	B.01	236.6	Tr500	20.44	457.14	457.97	458.20	458.76	0.048375	3.94	5.21	8.73	1.59
B.01	B.01	226.6	Tr200	17.06	456.42	456.93	457.21	457.90	0.096368	4.37	3.91	9.23	2.13
B.01	B.01	226.6	Tr050	12.16	456.42	456.84	457.07	457.61	0.100954	3.90	3.12	8.89	2.10
B.01	B.01	226.6	Tr100	14.56	456.42	456.88	457.14	457.75	0.098298	4.12	3.53	9.07	2.11
B.01	B.01	226.6	Tr500	20.44	456.42	456.98	457.30	458.08	0.092573	4.64	4.42	9.45	2.12
B.01	B.01	216.6	Tr200	17.06	456.25	456.81	456.89	457.22	0.031768	2.81	6.06	11.74	1.25
B.01	B.01	216.6	Tr050	12.16	456.25	456.74	456.77	457.02	0.025512	2.31	5.26	11.59	1.09
B.01	B.01	216.6	Tr100	14.56	456.25	456.78	456.83	457.11	0.028363	2.55	5.70	11.67	1.17
B.01	B.01	216.6	Tr500	20.44	456.25	456.85	456.97	457.36	0.036682	3.16	6.48	11.82	1.35
B.01	B.01	206.6	Tr200	17.06	455.99	456.64	456.69	457.00	0.026562	2.65	6.44	12.00	1.15
B.01	B.01	206.6	Tr050	12.16	455.99	456.53	456.57	456.81	0.027072	2.34	5.19	11.76	1.13
B.01	B.01	206.6	Tr100	14.56	455.99	456.59	456.63	456.91	0.026555	2.49	5.85	11.89	1.13
B.01	B.01	206.6	Tr500	20.44	455.99	456.72	456.77	457.11	0.024366	2.78	7.38	12.18	1.13
B.01	B.01	196.6	Tr200	17.06	455.72	456.33	456.41	456.71	0.033773	2.72	6.28	13.67	1.28
B.01	B.01	196.6	Tr050	12.16	455.72	456.25	456.30	456.53	0.030938	2.32	5.24	13.47	1.19
B.01	B.01	196.6	Tr100	14.56	455.72	456.30	456.36	456.61	0.030345	2.47	5.90	13.60	1.20
B.01	B.01	196.6	Tr500	20.44	455.72	456.39	456.48	456.82	0.033005	2.90	7.06	13.82	1.29
B.01	B.01	186.6	Tr200	17.06	455.51	456.07	456.12	456.37	0.029234	2.44	6.99	16.11	1.18
B.01	B.01	186.6	Tr050	12.16	455.51	455.99	456.02	456.22	0.028782	2.13	5.71	15.90	1.14
B.01	B.01	186.6	Tr100	14.56	455.51	456.02	456.07	456.30	0.030471	2.32	6.27	16.01	1.18
B.01	B.01	186.6	Tr500	20.44	455.51	456.11	456.18	456.47	0.030777	2.67	7.67	16.21	1.23
B.01	B.01	176.6	Tr200	17.06	455.37	455.88	455.92	456.16	0.028595	2.33	7.33	18.14	1.16
B.01	B.01	176.6	Tr050	12.16	455.37	455.77	455.83	456.03	0.039530	2.26	5.39	17.49	1.30
B.01	B.01	176.6	Tr100	14.56	455.37	455.82	455.88	456.10	0.035476	2.33	6.24	17.78	1.26
B.01	B.01	176.6	Tr500	20.44	455.37	455.95	455.98	456.24	0.024348	2.39	8.60	18.55	1.10
B.01	B.01	166.6	Tr200	17.06	455.24	455.68	455.72	455.95	0.029200	2.32	7.36	18.56	1.17
B.01	B.01	166.6	Tr050	12.16	455.24	455.54	455.63	455.86	0.060255	2.53	4.80	18.00	1.57
B.01	B.01	166.6	Tr100	14.56	455.24	455.60	455.68	455.91	0.043693	2.46	5.92	18.25	1.38
B.01	B.01	166.6	Tr500	20.44	455.24	455.76	455.78	456.03	0.022990	2.32	8.85	18.88	1.07
B.01	B.01	156.6	Tr200	17.06	454.99	455.35	455.40	455.62	0.037021	2.31	7.39	21.96	1.27
B.01	B.01	156.6	Tr050	12.16	454.99	455.30	455.32	455.48	0.030020	1.90	6.41	21.86	1.12
B.01	B.01	156.6	Tr100	14.56	454.99	455.35	455.36	455.54	0.026059	1.95	7.47	21.97	1.07
B.01	B.01	156.6	Tr500	20.44	454.99	455.36	455.45	455.72	0.044738	2.63	7.78	22.00	1.41
B.01	B.01	146.6	Tr200	17.06	454.36	454.82	454.92	455.16	0.057850	2.55	6.69	24.20	1.55
B.01	B.01	146.6	Tr050	12.16	454.36	454.76	454.84	455.04	0.068185	2.34	5.19	24.06	1.61
B.01	B.01	146.6	Tr100	14.56	454.36	454.78	454.88	455.12	0.075004	2.59	5.62	24.10	1.71



River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
B.01	B.01	146.6	Tr500	20.44	454.36	454.86	454.96	455.23	0.053630	2.68	7.63	24.29	1.52
B.01	B.01	136.6	Tr200	17.06	454.00	454.92	454.69	454.99	0.004960	1.24	13.75	23.09	0.51
B.01	B.01	136.6	Tr050	12.16	454.00	454.75	454.60	454.82	0.007200	1.22	9.95	22.25	0.58
B.01	B.01	136.6	Tr100	14.56	454.00	454.83	454.64	454.91	0.005915	1.23	11.85	22.67	0.54
B.01	B.01	136.6	Tr500	20.44	454.00	455.03	454.74	455.11	0.004071	1.26	16.33	23.65	0.47
B.01	B.01	126.6	Tr200	17.06	453.95	454.82		454.94	0.006132	1.54	11.12	16.16	0.58
B.01	B.01	126.6	Tr050	12.16	453.95	454.64		454.75	0.007880	1.47	8.29	15.24	0.64
B.01	B.01	126.6	Tr100	14.56	453.95	454.73		454.84	0.006973	1.50	9.71	15.71	0.61
B.01	B.01	126.6	Tr500	20.44	453.95	454.93		455.06	0.005330	1.58	12.99	16.73	0.56
B.01	B.01	116.6	Tr200	17.06	453.66	454.47	454.47	454.81	0.019007	2.58	6.62	10.09	1.00
B.01	B.01	116.6	Tr050	12.16	453.66	454.33	454.33	454.61	0.020361	2.33	5.22	9.53	1.01
B.01	B.01	116.6	Tr100	14.56	453.66	454.41	454.41	454.71	0.019745	2.45	5.94	9.82	1.01
B.01	B.01	116.6	Tr500	20.44	453.66	454.57	454.57	454.94	0.017889	2.72	7.55	10.44	0.99
B.01	B.01	106.6	Tr200	17.06	453.37	454.33	454.21	454.55	0.011074	2.06	8.29	11.65	0.77
B.01	B.01	106.6	Tr050	12.16	453.37	454.22	454.08	454.37	0.009816	1.75	6.96	11.32	0.71
B.01	B.01	106.6	Tr100	14.56	453.37	454.28	454.15	454.46	0.010548	1.91	7.64	11.49	0.75
B.01	B.01	106.6	Tr500	20.44	453.37	454.17	454.30	454.69	0.036419	3.21	6.37	11.17	1.36
B.01	B.01	96.6	Tr200	17.06	453.33	454.14	454.14	454.40	0.020250	2.27	7.52	14.39	1.00
B.01	B.01	96.6	Tr050	12.16	453.33	454.06	454.02	454.24	0.017609	1.91	6.37	14.15	0.91
B.01	B.01	96.6	Tr100	14.56	453.33	454.10	454.08	454.32	0.018996	2.09	6.97	14.27	0.96
B.01	B.01	96.6	Tr500	20.44	453.33	454.20	454.20	454.50	0.019870	2.43	8.44	14.57	1.01
B.01	B.01	89.72	Tr200	17.06	453.23	454.17	453.96	454.27	0.006322	1.45	11.79	18.69	0.58
B.01	B.01	89.72	Tr050	12.16	453.23	454.07		454.14	0.005572	1.22	9.95	18.37	0.53
B.01	B.01	89.72	Tr100	14.56	453.23	454.12		454.21	0.005953	1.33	10.91	18.54	0.56
B.01	B.01	89.72	Tr500	20.44	453.23	454.24	454.02	454.36	0.006429	1.56	13.09	18.91	0.59
B.01	B.01	76.6	Tr200	17.06	453.22	454.18		454.21	0.001890	0.83	20.45	30.18	0.32
B.01	B.01	76.6	Tr050	12.16	453.22	454.07		454.09	0.001715	0.71	17.13	29.86	0.30
B.01	B.01	76.6	Tr100	14.56	453.22	454.12		454.15	0.001813	0.77	18.82	30.02	0.31
B.01	B.01	76.6	Tr500	20.44	453.22	454.25		454.29	0.001894	0.90	22.80	30.40	0.33
B.01	B.01	69.74	Tr200	17.06	453.21	454.17		454.20	0.001612	0.77	22.11	32.69	0.30
B.01	B.01	69.74	Tr050	12.16	453.21	454.06		454.08	0.001463	0.66	18.53	32.36	0.28
B.01	B.01	69.74	Tr100	14.56	453.21	454.11		454.14	0.001547	0.72	20.35	32.53	0.29
B.01	B.01	69.74	Tr500	20.44	453.21	454.25		454.28	0.001610	0.83	24.68	32.93	0.30
B.01	B.01	56.6	Tr200	17.06	453.19	454.15		454.18	0.001706	0.76	22.59	35.78	0.30
B.01	B.01	56.6	Tr050	12.16	453.19	454.04		454.06	0.001617	0.65	18.70	35.52	0.29
B.01	B.01	56.6	Tr100	14.56	453.19	454.09		454.12	0.001668	0.70	20.68	35.65	0.30
B.01	B.01	56.6	Tr500	20.44	453.19	454.23		454.26	0.001656	0.80	25.42	35.97	0.30
B.01	B.01	46.6	Tr200	17.06	453.19	454.09		454.14	0.005493	1.07	16.00	36.49	0.51
B.01	B.01	46.6	Tr050	12.16	453.19	453.97		454.03	0.007501	1.03	11.85	35.97	0.57
B.01	B.01	46.6	Tr100	14.56	453.19	454.03		454.09	0.006282	1.04	13.97	36.26	0.54
B.01	B.01	46.6	Tr500	20.44	453.19	454.17		454.23	0.004361	1.07	19.15	36.86	0.47
B.01	B.01	26.6	Tr200	17.06	452.93	453.95		454.03	0.005973	1.23	13.86	27.00	0.55
B.01	B.01	26.6	Tr050	12.16	452.93	453.81		453.88	0.006651	1.17	10.39	23.44	0.56
B.01	B.01	26.6	Tr100	14.56	452.93	453.89		453.96	0.006238	1.20	12.17	25.33	0.55
B.01	B.01	26.6	Tr500	20.44	452.93	454.04		454.12	0.007148	1.21	16.98	39.42	0.58
B.01	B.01	6.6	Tr200	17.06	452.70	453.88	453.52	453.93	0.003194	1.01	16.93	27.97	0.41
B.01	B.01	6.6	Tr050	12.16	452.70	453.74	453.41	453.79	0.003194	0.92	13.22	24.73	0.40
B.01	B.01	6.6	Tr100	14.56	452.70	453.82	453.47	453.86	0.003192	0.96	15.14	26.45	0.41
B.01	B.01	6.6	Tr500	20.44	452.70	453.96	453.58	454.02	0.003195	1.06	19.28	29.84	0.42