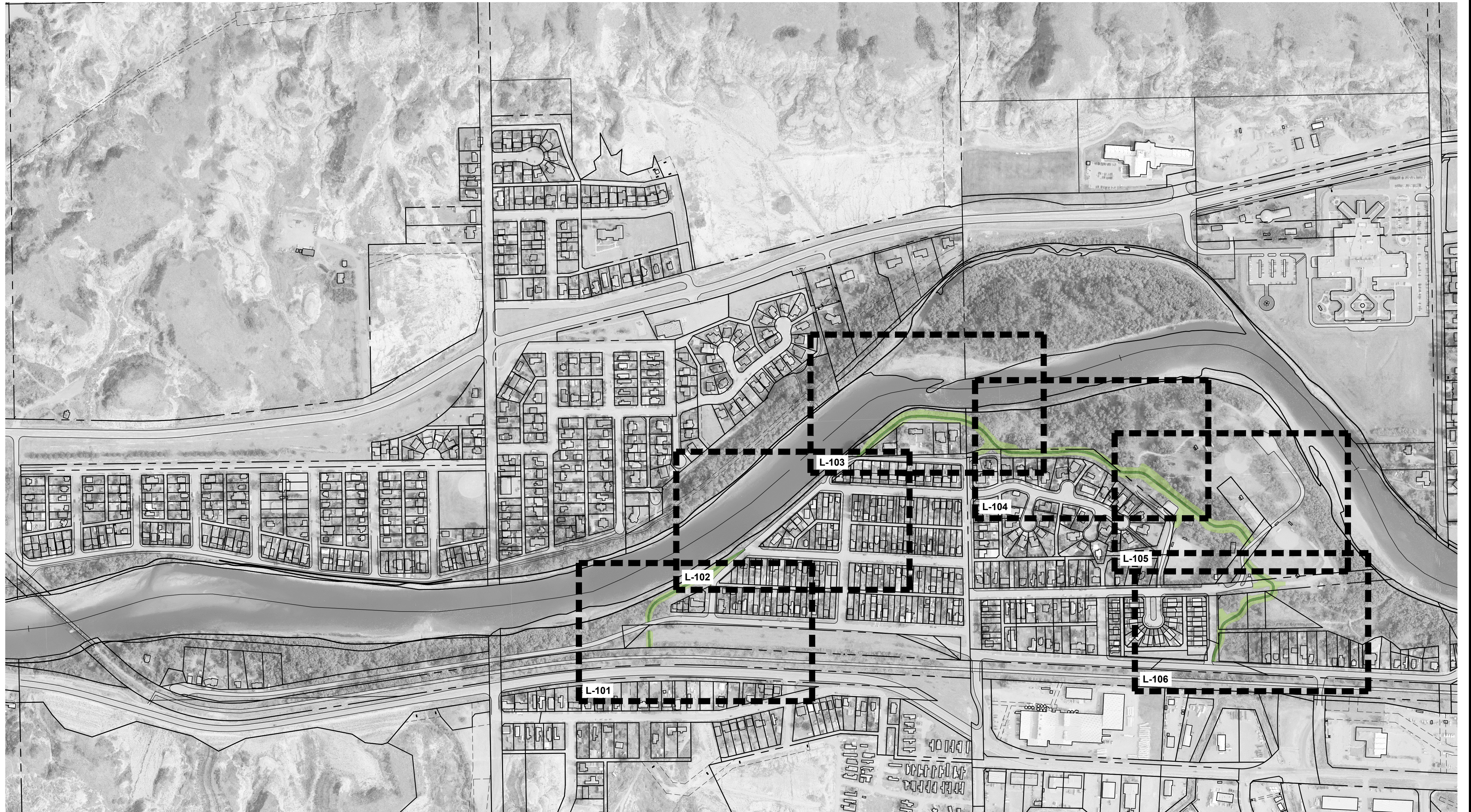


# TOWN OF DRUMHELLER

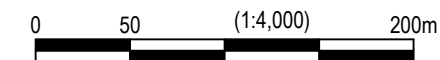
## NEWCASTLE DIKE LANDSCAPE CONSTRUCTION PACKAGE

### DRAWING LIST

DRAWING NO.	DRAWING TITLE
L-100	LANDSCAPE COVER SHEET & KEY PLAN
L-101	LANDSCAPE MASTER PLAN
L-102	LANDSCAPE MASTER PLAN
L-103	LANDSCAPE MASTER PLAN
L-104	LANDSCAPE MASTER PLAN
L-105	LANDSCAPE MASTER PLAN
L-106	LANDSCAPE MASTER PLAN
L-301	LAYOUT & GRADING PLAN
L-302	LAYOUT & GRADING PLAN
L-303	LAYOUT & GRADING PLAN
L-304	LAYOUT & GRADING PLAN
L-305	LAYOUT & GRADING PLAN
L-306	LAYOUT & GRADING PLAN
L-307	LAYOUT & GRADING PLAN
L-308	LAYOUT & GRADING PLAN
L-309	LAYOUT & GRADING PLAN
L-310	LAYOUT & GRADING PLAN
L-311	LAYOUT & GRADING PLAN
L-401	SEEDING PLAN
L-402	SEEDING PLAN
L-403	SEEDING PLAN
L-404	SEEDING PLAN
L-405	SEEDING PLAN
L-406	SEEDING PLAN
L-407	SEEDING PLAN
L-408	SEEDING PLAN
L-409	SEEDING PLAN
L-410	SEEDING PLAN
L-411	SEEDING PLAN
L-412	SEEDING NOTES



**PLAN**  
Scale 1:4000



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2	2022-08-11	BB	MD	EJW	ISSUED FOR CONSTRUCTION

Rev	Date	Des	Dwn	Chk	Description

<b>TOWN OF DRUMHELLER NEWCASTLE DIKE</b>	
<b>LANDSCAPE COVER SHEET &amp; KEY PLAN</b>	
Project No. <b>133142</b>	Drawing No. <b>L-100</b>
Group <b>LANDSCAPE</b>	Rev. <b>2</b>

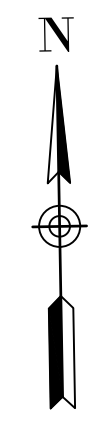
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**LEGEND**

	EXTENT OF LANDSCAPE SEEDING AT DIKE FOOTPRINT
	LANDSCAPE SEEDING AT TOP OF DIKE
	POTENTIAL FUTURE 2100 TRAIL (OLD RAILWAY LINE/CONNECTION)



SEE L-102  
SEE L-101

RED DEER RIVER

NEWCASTLE TR.

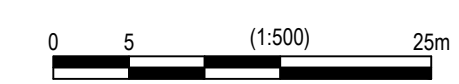
RIVERSIDE DR. W.

SOUTH RAILWAY AVE. S.W.

ADAPTIVE  
FILL AREA

POTENTIAL FUTURE  
CONNECTION TO OLD  
RAILWAY (TRAIL 2100)

**PLAN**  
Scale 1:500



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Rev	Date	Des	Dwn	Chk	Description

**TOWN OF DRUMHELLER  
NEWCASTLE DIKE**

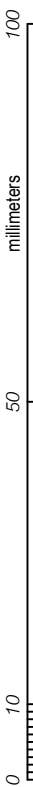
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Project No. **133142** Drawing No. **L-101** Rev. **2**

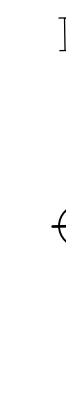
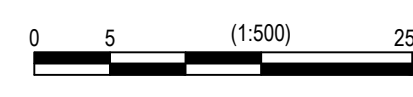
Group **LANDSCAPE**

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PLAN  
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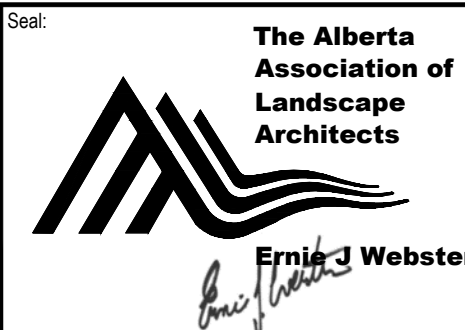


LEGEND

- EXTENT OF LANDSCAPE SEEDING AT DIKE FOOTPRINT
- LANDSCAPE SEEDING AT TOP OF DIKE
- POTENTIAL FUTURE 2100 TRAIL (OLD RAILWAY LINE/CONNECTION)



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TOWN OF DRUMHELLER  
NEWCASTLE DIKE

LANDSCAPE MASTER PLAN

Project No. 133142  
Group LANDSCAPE

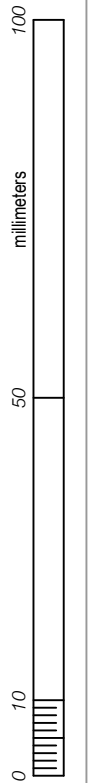
Drawing No.

L-102

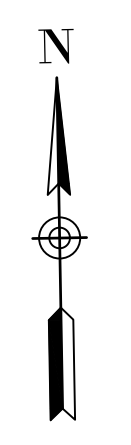
Rev. 2

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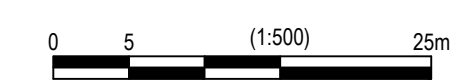
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- LEGEND**
- EXTENT OF LANDSCAPE SEEDING AT DIKE FOOTPRINT
  - LANDSCAPE SEEDING AT TOP OF DIKE
  - POTENTIAL FUTURE 2100 TRAIL (OLD RAILWAY LINE/CONNECTION)



**PLAN**  
Scale 1:500



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**TOWN OF DRUMHELLER  
NEWCASTLE DIKE**

**LANDSCAPE MASTER PLAN**

Project No. **133142** Drawing No. **L-103** Rev. **2**

Group **LANDSCAPE**

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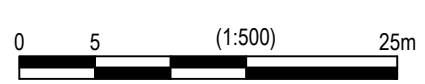
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SEE L-104  
SEE L-103

SEE L-104  
SEE L-105

**PLAN**  
Scale 1:500



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Rev	Date	Des	Dwn	Chk	Description

**TOWN OF DRUMHELLER  
NEWCASTLE DIKE**

**LANDSCAPE MASTER PLAN**

Project No. <b>133142</b>	Drawing No. <b>L-104</b>	Rev. <b>2</b>
Group <b>LANDSCAPE</b>		

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SEE L-104  
SEE L-105

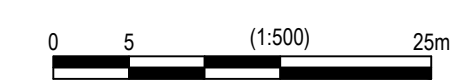
**LEGEND**

- EXTENT OF LANDSCAPE SEEDING AT DIKE FOOTPRINT
- LANDSCAPE SEEDING AT TOP OF DIKE
- POTENTIAL FUTURE 2100 TRAIL (OLD RAILWAY LINE/CONNECTION)



SEE L-105  
SEE L-106

**PLAN**  
Scale 1:500



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**TOWN OF DRUMHELLER  
NEWCASTLE DIKE**

**LANDSCAPE MASTER PLAN**

Project No. **133142** Drawing No. **L-105** Rev. **2**

Group **LANDSCAPE**

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millimeters

SEE L-105  
SEE L-106

**LEGEND**

- EXTENT OF LANDSCAPE SEEDING AT DIKE FOOTPRINT
- LANDSCAPE SEEDING AT TOP OF DIKE
- POTENTIAL FUTURE 2100 TRAIL (OLD RAILWAY LINE/CONNECTION)

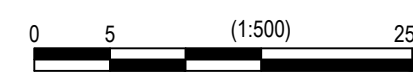


NEWCASTLE TRAIL

10 STREET SW

NEWCASTLE TR.

**PLAN**  
Scale 1:500



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**TOWN OF DRUMHELLER  
NEWCASTLE DIKE**

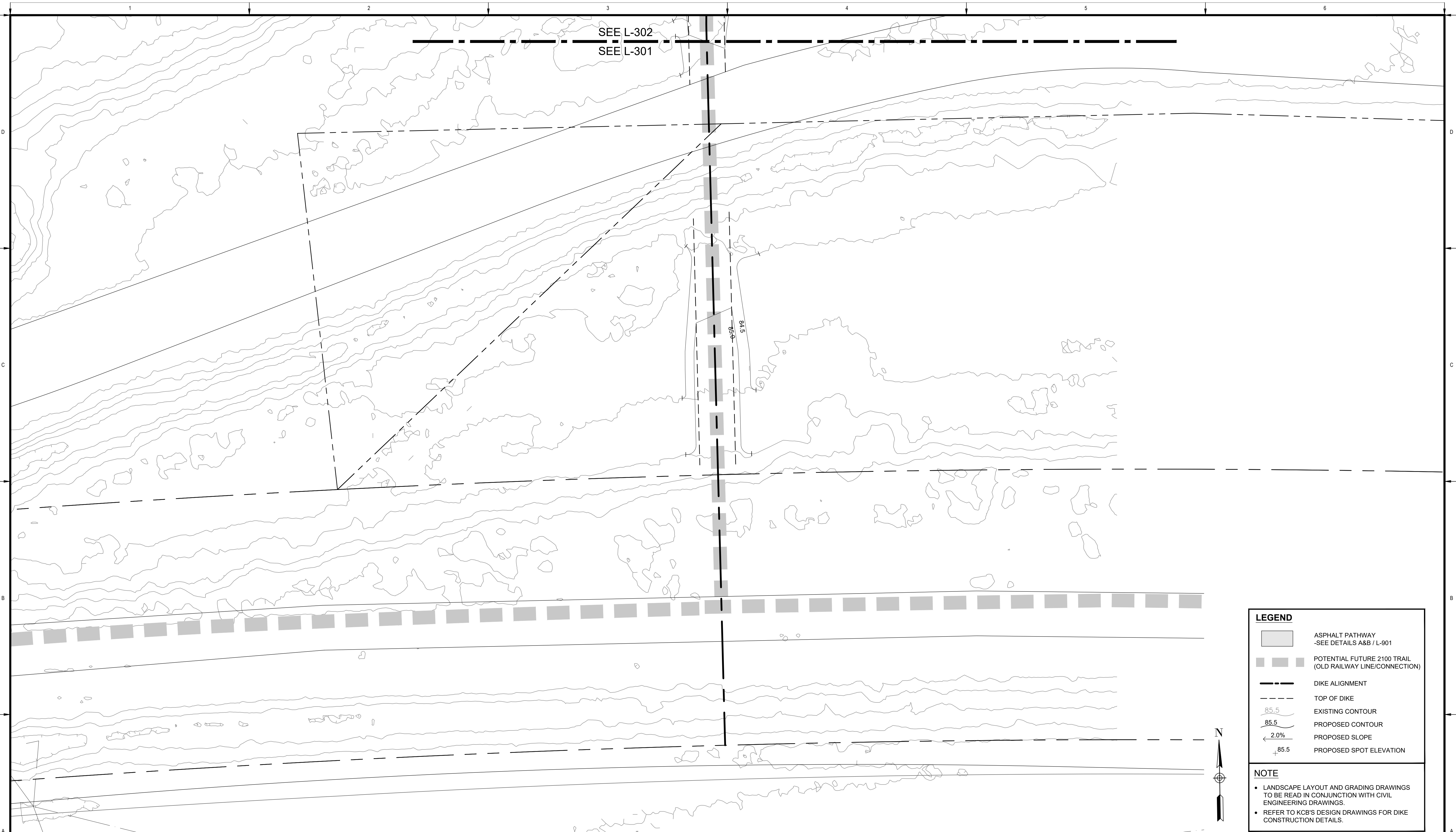
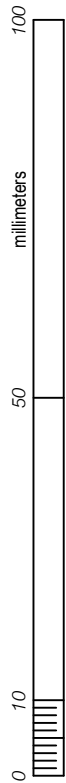
**LANDSCAPE MASTER PLAN**

Project No. **133142** Drawing No. **L-106** Rev. **2**

Group **LANDSCAPE**

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**LEGEND**

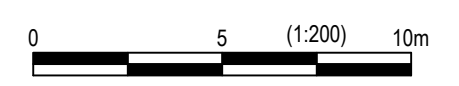
- ASPHALT PATHWAY  
-SEE DETAILS A&B / L-901
- POTENTIAL FUTURE 2100 TRAIL  
(OLD RAILWAY LINE/CONNECTION)
- DIKE ALIGNMENT
- TOP OF DIKE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SLOPE
- PROPOSED SPOT ELEVATION

**NOTE**

- LANDSCAPE LAYOUT AND GRADING DRAWINGS TO BE READ IN CONJUNCTION WITH CIVIL ENGINEERING DRAWINGS.
- REFER TO KCB'S DESIGN DRAWINGS FOR DIKE CONSTRUCTION DETAILS.



**PLAN**  
Scale 1:200



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Rev	Date	Des	Dwn	Chk	Description

**TOWN OF DRUMHELLER  
NEWCASTLE DIKE**

**LAYOUT & GRADING PLAN**

Project No. **133142** Drawing No. **L-301** Rev. **2**

Group **LANDSCAPE**

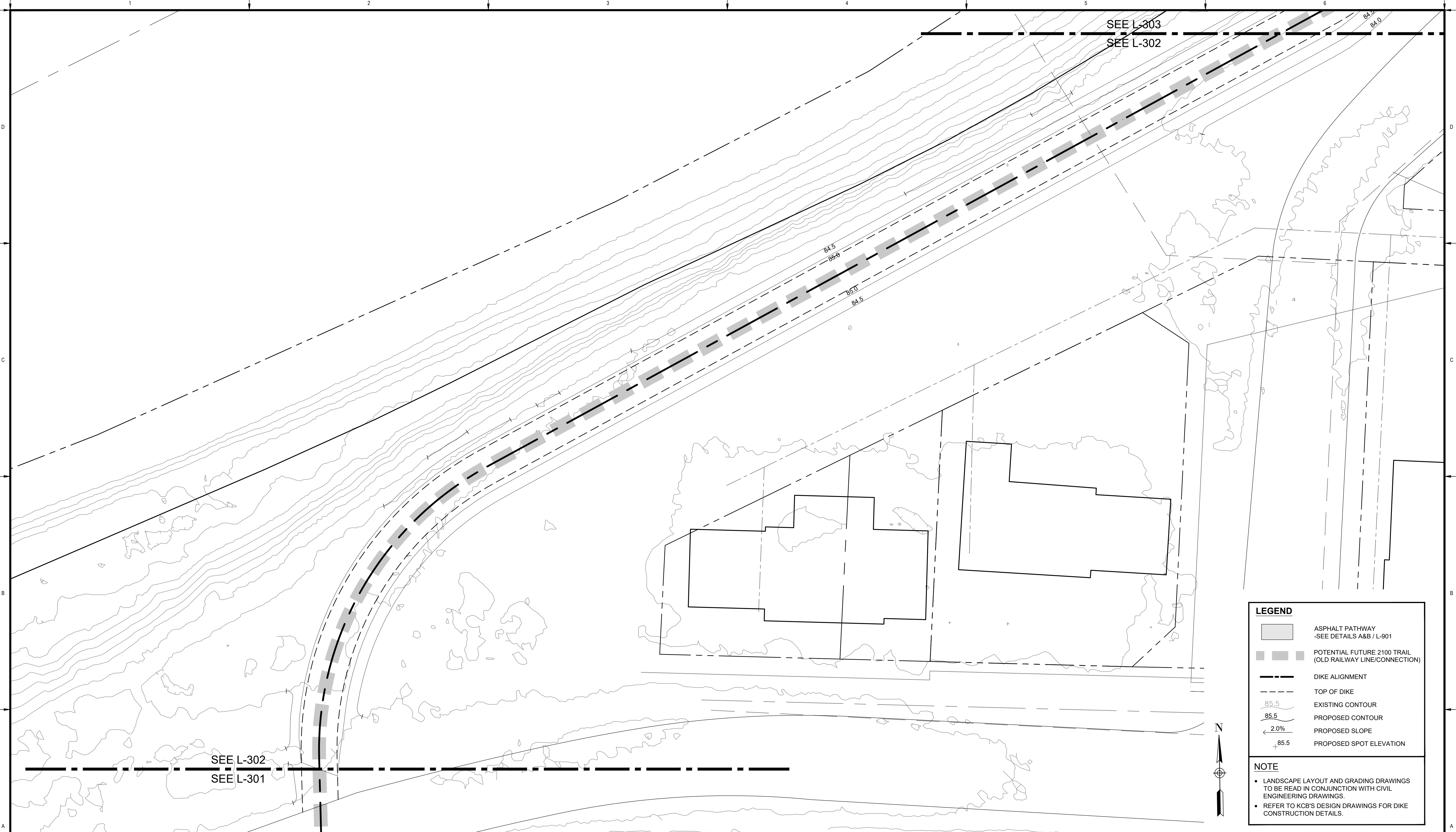


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**LEGEND**

- ASPHALT PATHWAY  
-SEE DETAILS A&B / L-901
- POTENTIAL FUTURE 2100 TRAIL  
(OLD RAILWAY LINE/CONNECTION)
- DIKE ALIGNMENT
- TOP OF DIKE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SLOPE
- PROPOSED SPOT ELEVATION

**NOTE**

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2	2022-08-11	BB	MD	EJW	ISSUED FOR CONSTRUCTION						

**TOWN OF DRUMHELLER  
NEWCASTLE DIKE**

**LAYOUT & GRADING PLAN**

Project No. **133142** Drawing No. **L-302** Rev. **2**

Group **LANDSCAPE**

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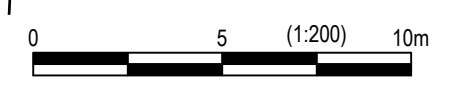
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	POTENTIAL FUTURE 2100 TRAIL (OLD RAILWAY LINE/CONNECTION)
	DIKE ALIGNMENT
	TOP OF DIKE
	EXISTING CONTOUR
	PROPOSED CONTOUR
	PROPOSED SLOPE
	PROPOSED SPOT ELEVATION

**NOTE**

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**PLAN**

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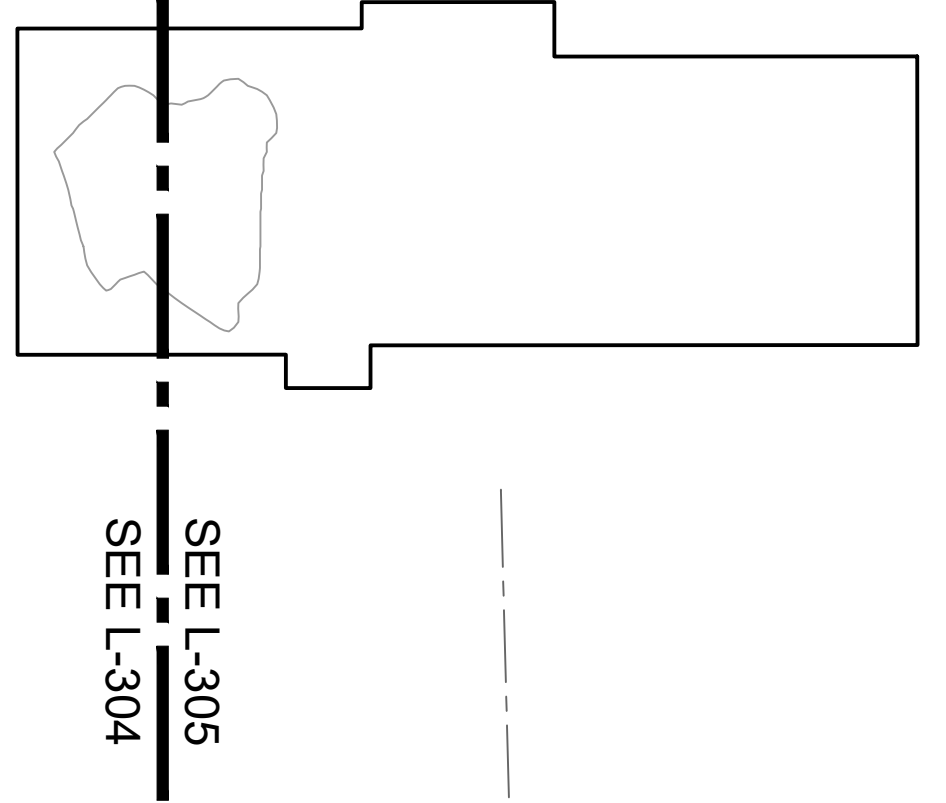
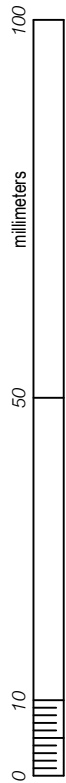
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2	2022-08-11	BB	MD	EJW	ISSUED FOR CONSTRUCTION

Rev	Date	Des	Dwn	Chk	Description

**TOWN OF DRUMHELLER  
NEWCASTLE DIKE**

**LAYOUT & GRADING PLAN**

Project No. 133142	Drawing No.	Rev.
Group LANDSCAPE	<b>L-303</b>	<b>2</b>



**LEGEND**

- ASPHALT PATHWAY  
-SEE DETAILS A&B / L-901
- POTENTIAL FUTURE 2100 TRAIL  
(OLD RAILWAY LINE/CONNECTION)
- DIKE ALIGNMENT
- TOP OF DIKE
- EXISTING CONTOUR
- PROPOSED CONTOUR
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- REFER TO KCB'S DESIGN DRAWINGS FOR DIKE CONSTRUCTION DETAILS.

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Rev	Date	Des	Dwn	Chk	Description

**TOWN OF DRUMHELLER  
 NEWCASTLE DIKE**

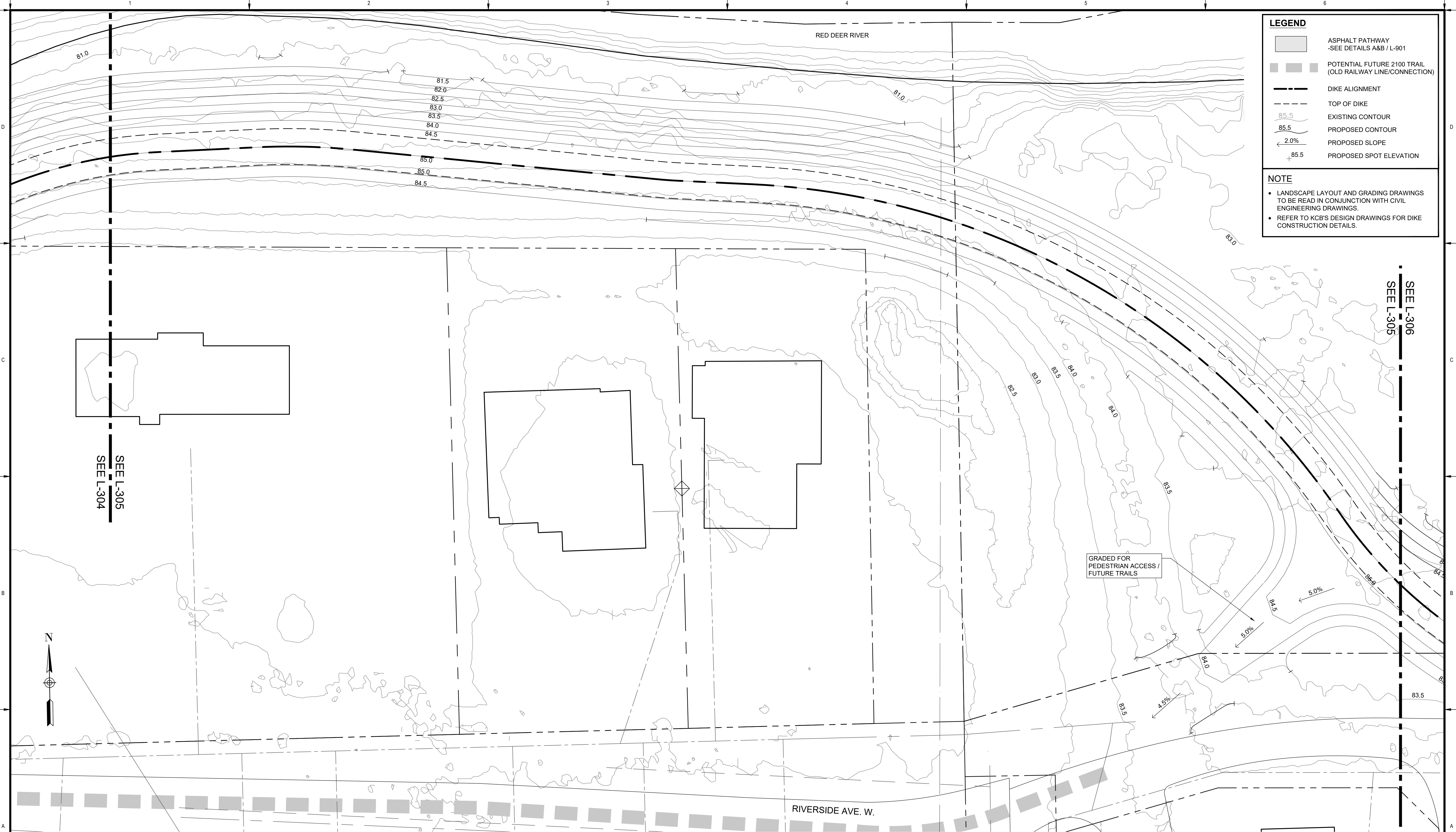
**LAYOUT & GRADING PLAN**

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 Group **LANDSCAPE**

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**LEGEND**

- ASPHALT PATHWAY  
-SEE DETAILS A&B / L-901
- POTENTIAL FUTURE 2100 TRAIL  
(OLD RAILWAY LINE/CONNECTION)
- DIKE ALIGNMENT
- TOP OF DIKE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SLOPE
- PROPOSED SPOT ELEVATION

**NOTE**

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Rev	Date	Des	Dwn	Chk	Description

**TOWN OF DRUMHELLER  
NEWCASTLE DIKE**

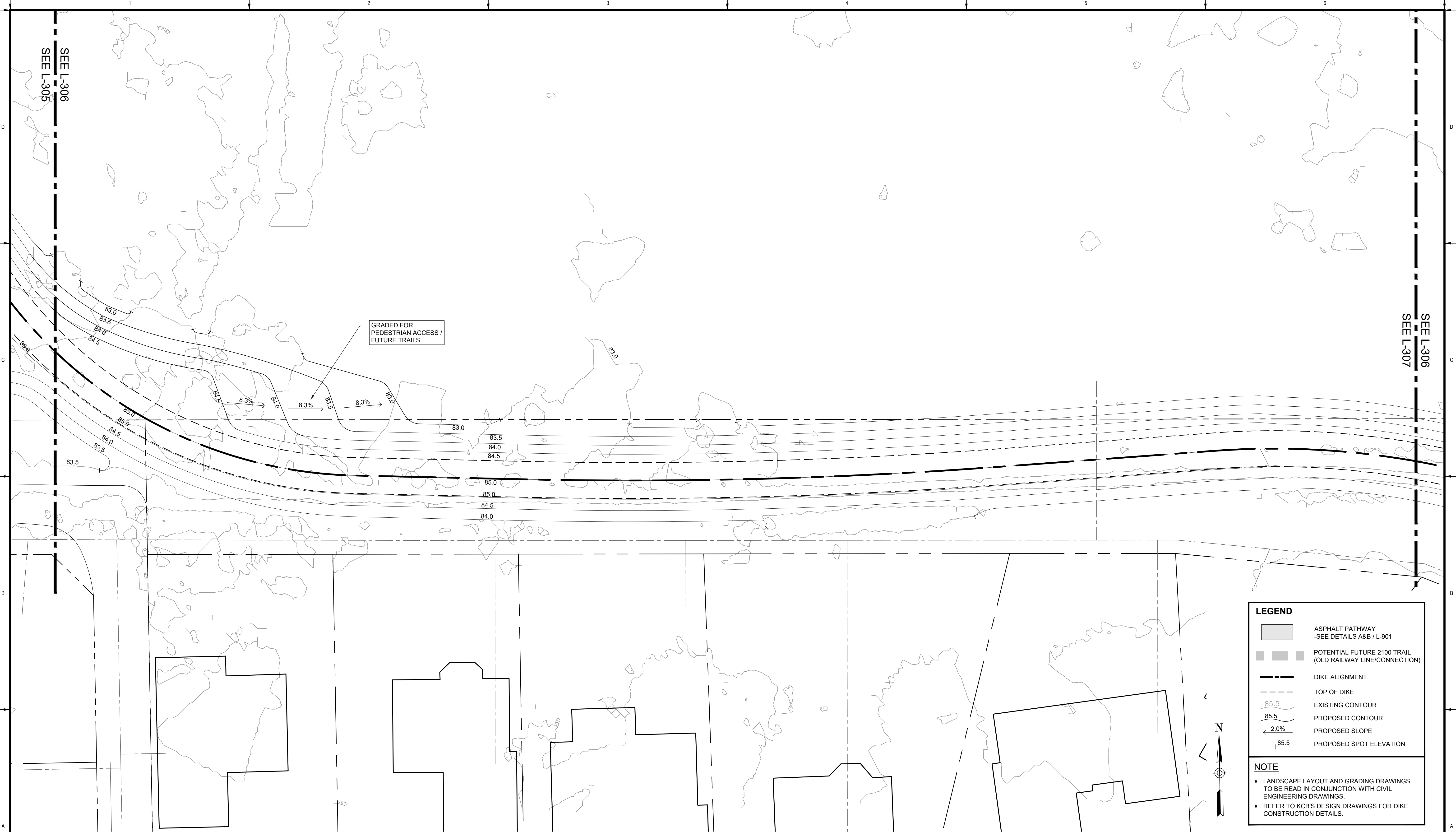
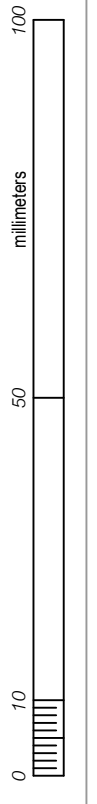
**LAYOUT & GRADING PLAN**

Project No. **133142** Drawing No. **L-305** Rev. **2**

Group **LANDSCAPE**

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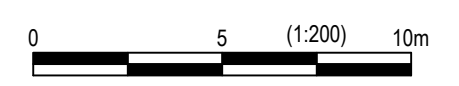
**LEGEND**

- ASPHALT PATHWAY  
-SEE DETAILS A&B / L-901
- POTENTIAL FUTURE 2100 TRAIL  
(OLD RAILWAY LINE/CONNECTION)
- DIKE ALIGNMENT
- TOP OF DIKE
- EXISTING CONTOUR
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**NOTE**

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Rev	Date	Des	Dwn	Chk	Description

**TOWN OF DRUMHELLER  
NEWCASTLE DIKE**

**LAYOUT & GRADING PLAN**

Project No. **133142** Drawing No. **L-306** Rev. **2**

Group **LANDSCAPE**

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SEE L-306  
SEE L-307

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Paper Size = ANSI D  
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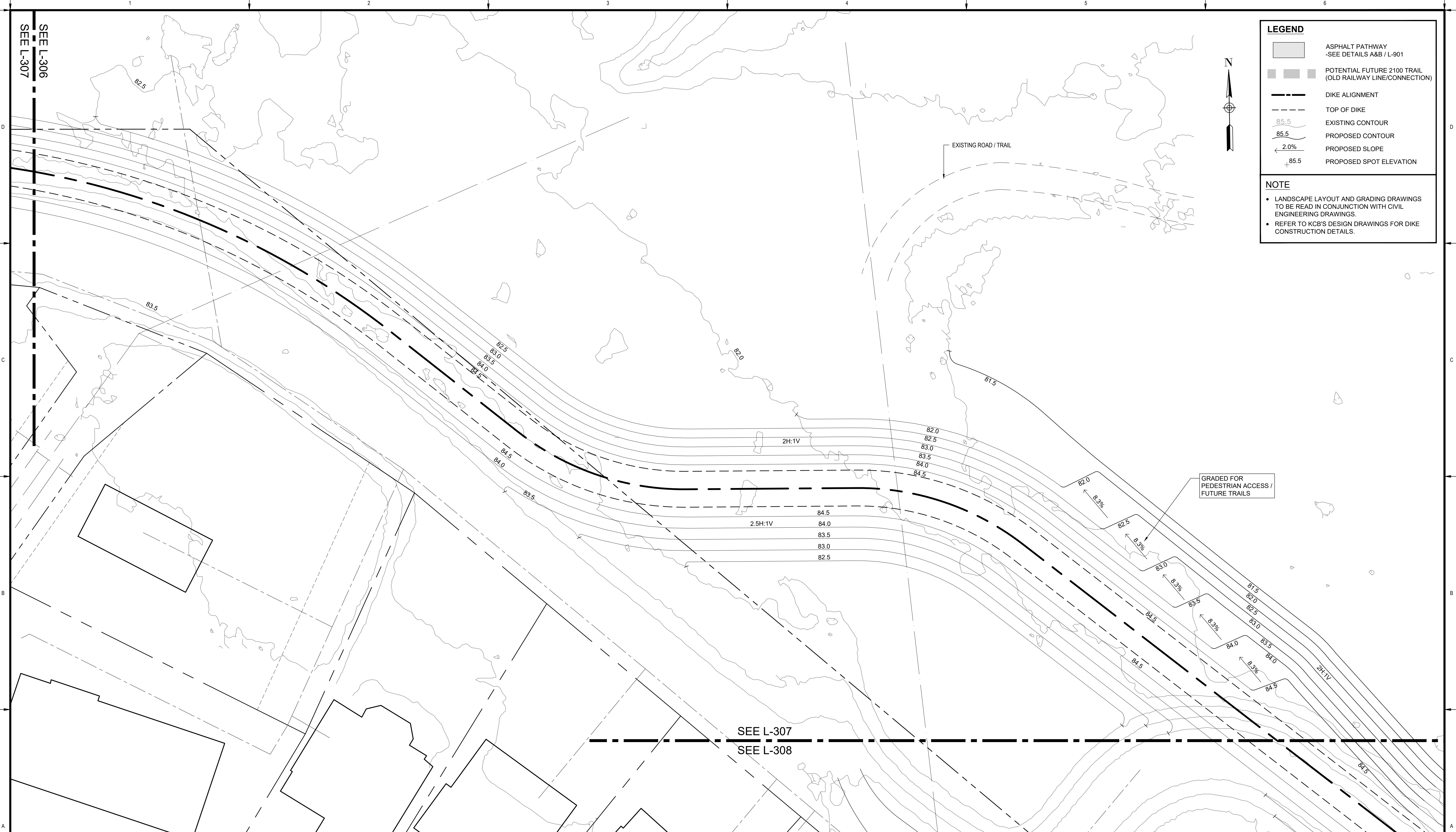
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**LEGEND**

	ASPHALT PATHWAY -SEE DETAILS A&B / L-901
	POTENTIAL FUTURE 2100 TRAIL (OLD RAILWAY LINE/CONNECTION)
	DIKE ALIGNMENT
	TOP OF DIKE
	EXISTING CONTOUR
	PROPOSED CONTOUR
	PROPOSED SLOPE
	PROPOSED SPOT ELEVATION

**NOTE**

- LANDSCAPE LAYOUT AND GRADING DRAWINGS TO BE READ IN CONJUNCTION WITH CIVIL ENGINEERING DRAWINGS.
- REFER TO KCB'S DESIGN DRAWINGS FOR DIKE CONSTRUCTION DETAILS.



**PLAN**  
Scale 1:200

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Rev	Date	Des	Dwn	Chk	Description	Rev	Date	Des	Dwn	Chk	Description
0	2022-06-29	BB	MD	EJW	ISSUED FOR TENDER						
1	2022-07-07	BB	MD	EJW	ISSUED FOR ADDENDUM #1						
2	2022-08-11	BB	MD	EJW	ISSUED FOR CONSTRUCTION						



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<b>TOWN OF DRUMHELLER NEWCASTLE DIKE</b>	
<b>LAYOUT &amp; GRADING PLAN</b>	
Project No. <b>133142</b>	Drawing No. <b>L-307</b>
Group <b>LANDSCAPE</b>	Rev. <b>2</b>

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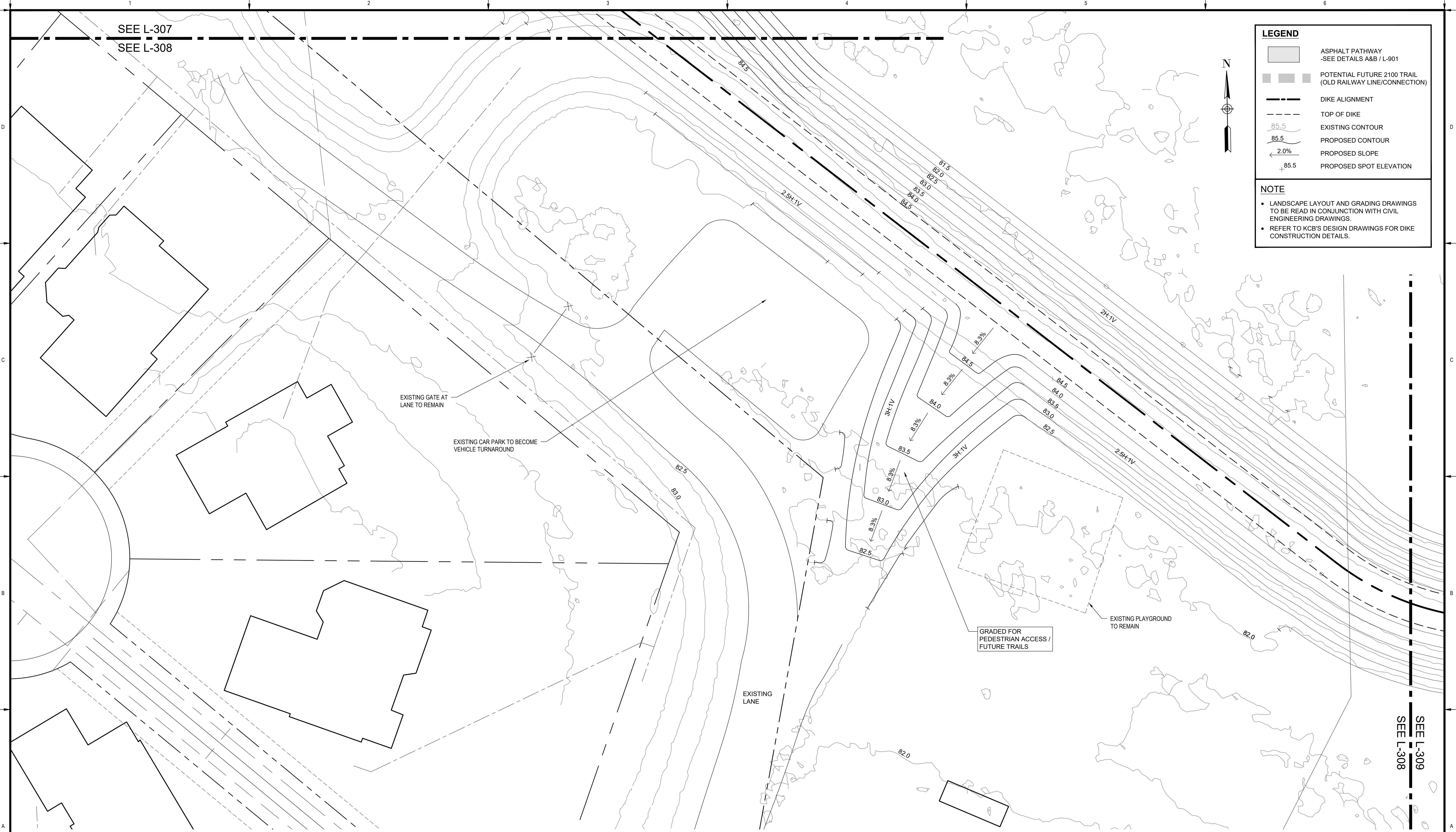
SEE L-307  
SEE L-308

**LEGEND**

- ASPHALT PATHWAY  
-SEE DETAILS A&B / L-901
- POTENTIAL FUTURE 2100 TRAIL  
(OLD RAILWAY LINE/CONNECTION)
- DIKE ALIGNMENT
- TOP OF DIKE
- 85.5 EXISTING CONTOUR
- 85.5 PROPOSED CONTOUR
- 2.0% PROPOSED SLOPE
- 85.5 PROPOSED SPOT ELEVATION

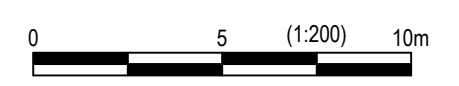
**NOTE**

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- REFER TO KCB'S DESIGN DRAWINGS FOR DIKE CONSTRUCTION DETAILS.



SEE L-309  
SEE L-308

**PLAN**



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Rev	Date	Des	Dwn	Chk	Description

TOWN OF DRUMHELLER  
NEWCASTLE DIKE

LAYOUT & GRADING PLAN

Project No. 133142  
Group LANDSCAPE

Drawing No.

L-308

Rev. 2

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ING PLAYGROUND  
MAIN

SEE L-308  
SEE L-309

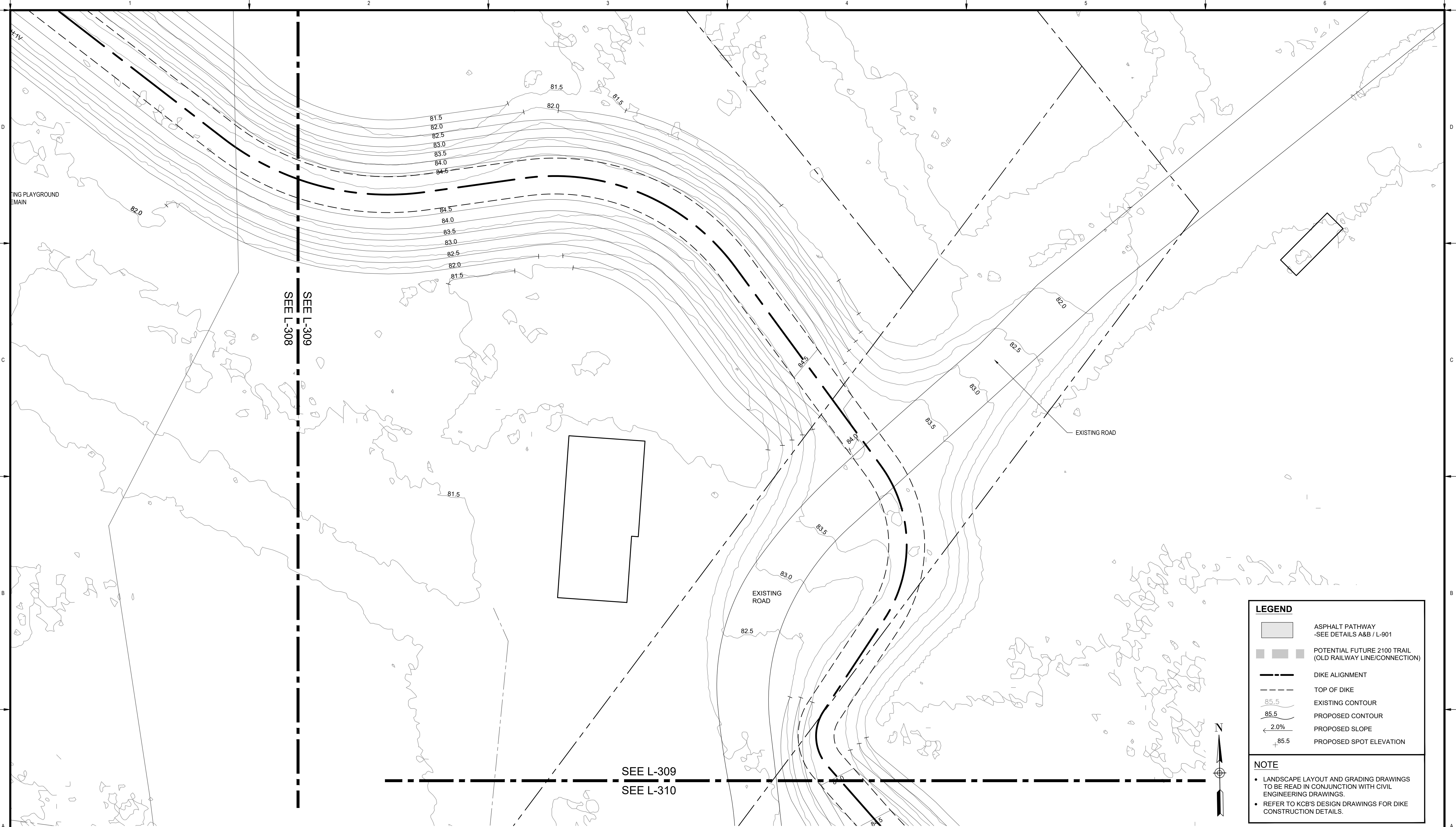
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SEE L-309  
SEE L-310

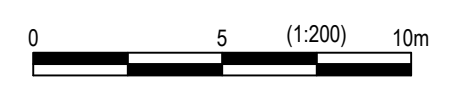
**LEGEND**

- ASPHALT PATHWAY  
-SEE DETAILS A&B / L-901
- POTENTIAL FUTURE 2100 TRAIL  
(OLD RAILWAY LINE/CONNECTION)
- DIKE ALIGNMENT
- TOP OF DIKE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- 2.0% PROPOSED SLOPE
- 85.5 PROPOSED SPOT ELEVATION

**NOTE**

- LANDSCAPE LAYOUT AND GRADING DRAWINGS TO BE READ IN CONJUNCTION WITH CIVIL ENGINEERING DRAWINGS
- REFER TO KCB'S DESIGN DRAWINGS FOR DIKE CONSTRUCTION DETAILS.

**PLAN**  
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2	2022-08-11	BB	MD	EJW	ISSUED FOR CONSTRUCTION

Rev	Date	Des	Dwn	Chk	Description

**TOWN OF DRUMHELLER  
NEWCASTLE DIKE**

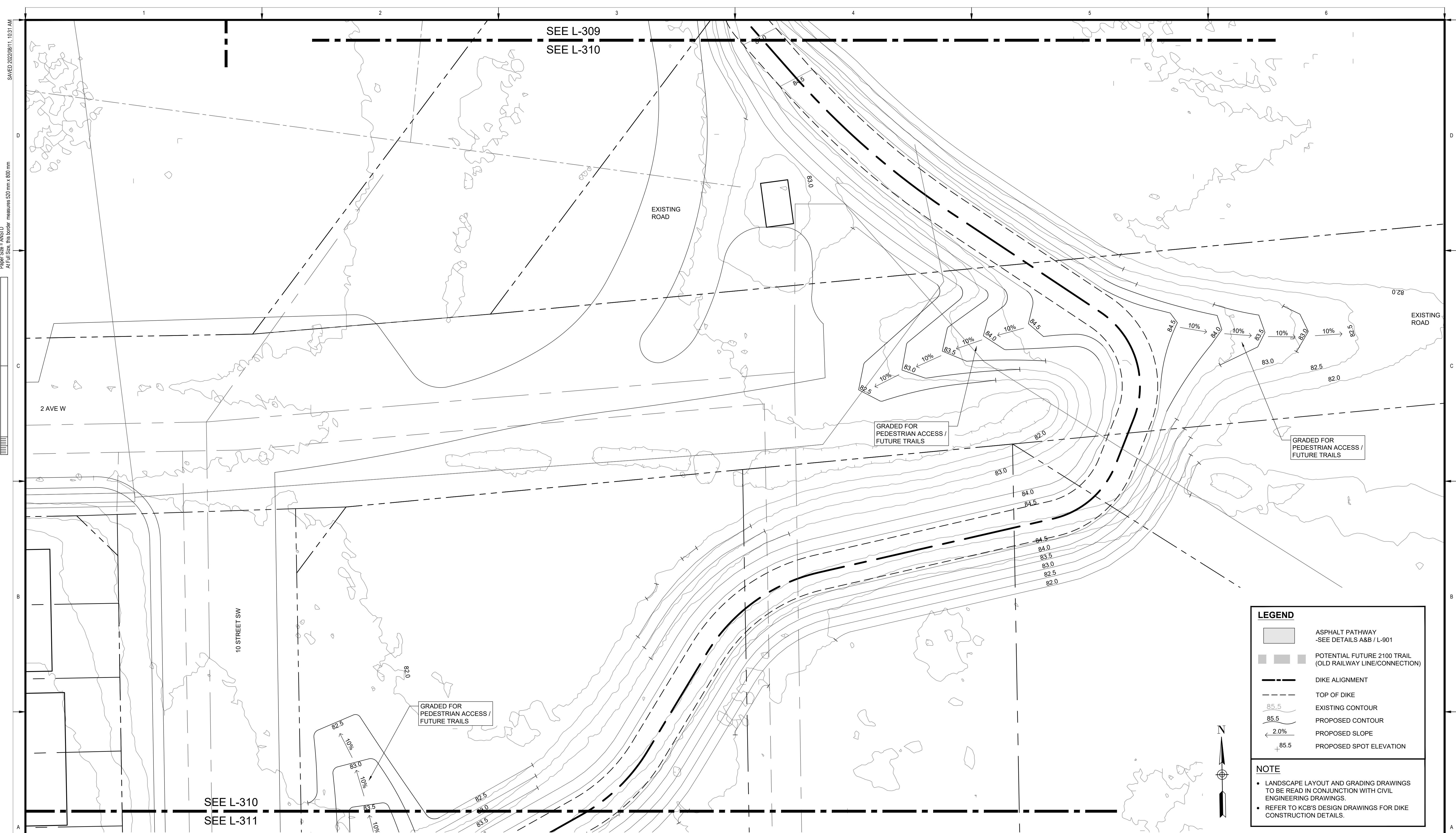
**LAYOUT & GRADING PLAN**

Project No. **133142** Drawing No. **L-309** Rev. **2**

Group **LANDSCAPE**



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**LEGEND**

	ASPHALT PATHWAY -SEE DETAILS A&B / L-901
	POTENTIAL FUTURE 2100 TRAIL (OLD RAILWAY LINE/CONNECTION)
	DIKE ALIGNMENT
	TOP OF DIKE
	EXISTING CONTOUR
	PROPOSED CONTOUR
	PROPOSED SLOPE
	PROPOSED SPOT ELEVATION

**NOTE**

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Rev	Date	Des	Dwn	Chk	Description

**TOWN OF DRUMHELLER  
NEWCASTLE DIKE**

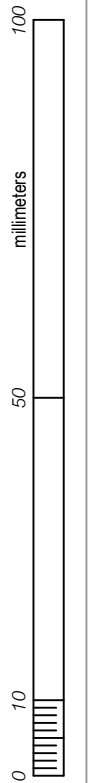
**LAYOUT & GRADING PLAN**

Project No. <b>133142</b>	Drawing No.	Rev.
Group <b>LANDSCAPE</b>	<b>L-310</b>	<b>2</b>

1  
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SEE L-310  
SEE L-311

10 STREET SW

PATHWAY ON DIKE

NEWCASTLE TRAIL

**LEGEND**

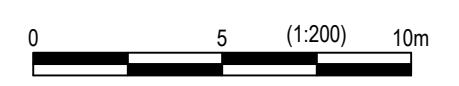
- ASPHALT PATHWAY  
-SEE DETAILS A&B / L-901
- POTENTIAL FUTURE 2100 TRAIL  
(OLD RAILWAY LINE/CONNECTION)
- DIKE ALIGNMENT
- TOP OF DIKE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SLOPE
- PROPOSED SPOT ELEVATION

**NOTE**

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- REFER TO KCB'S DESIGN DRAWINGS FOR DIKE CONSTRUCTION DETAILS.



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Rev	Date	Des	Dwn	Chk	Description

**TOWN OF DRUMHELLER  
NEWCASTLE DIKE**

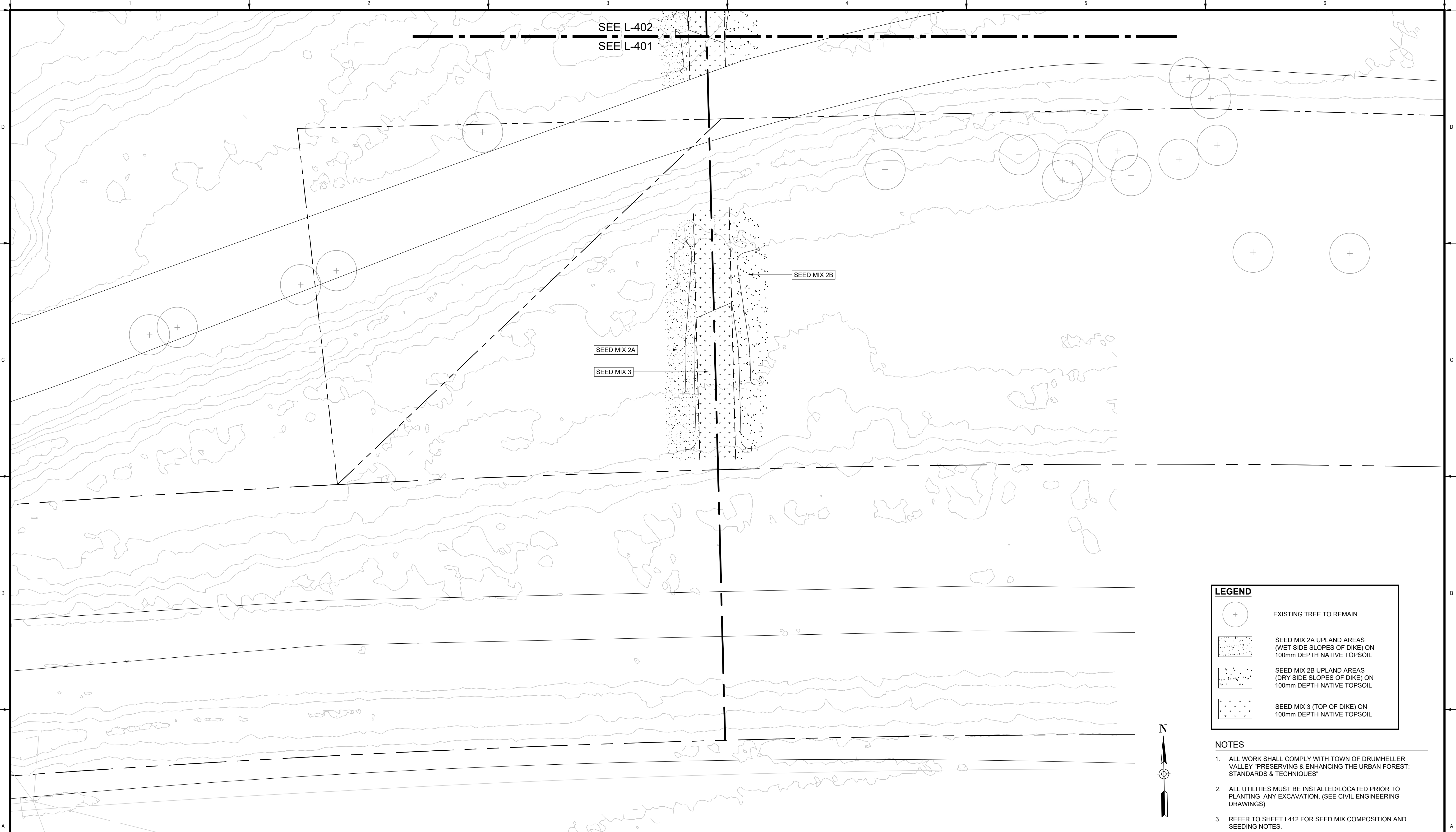
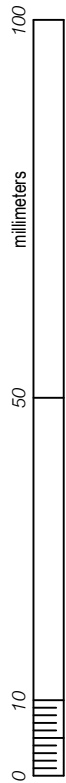
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Project No. **133142** Drawing No. **L-311** Rev. **2**

Group **LANDSCAPE**

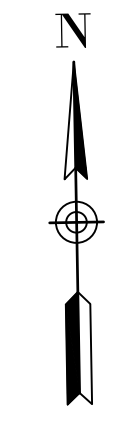
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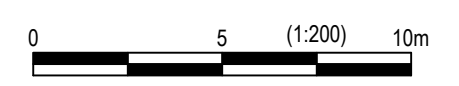


LEGEND	
	EXISTING TREE TO REMAIN
	SEED MIX 2A UPLAND AREAS (WET SIDE SLOPES OF DIKE) ON 100mm DEPTH NATIVE TOPSOIL
	SEED MIX 2B UPLAND AREAS (DRY SIDE SLOPES OF DIKE) ON 100mm DEPTH NATIVE TOPSOIL
	SEED MIX 3 (TOP OF DIKE) ON 100mm DEPTH NATIVE TOPSOIL

- NOTES**
- ALL WORK SHALL COMPLY WITH TOWN OF DRUMHELLER VALLEY "PRESERVING & ENHANCING THE URBAN FOREST: STANDARDS & TECHNIQUES"
  - ALL UTILITIES MUST BE INSTALLED/LOCATED PRIOR TO PLANTING ANY EXCAVATION. (SEE CIVIL ENGINEERING DRAWINGS)
  - REFER TO SHEET L412 FOR SEED MIX COMPOSITION AND SEEDING NOTES.



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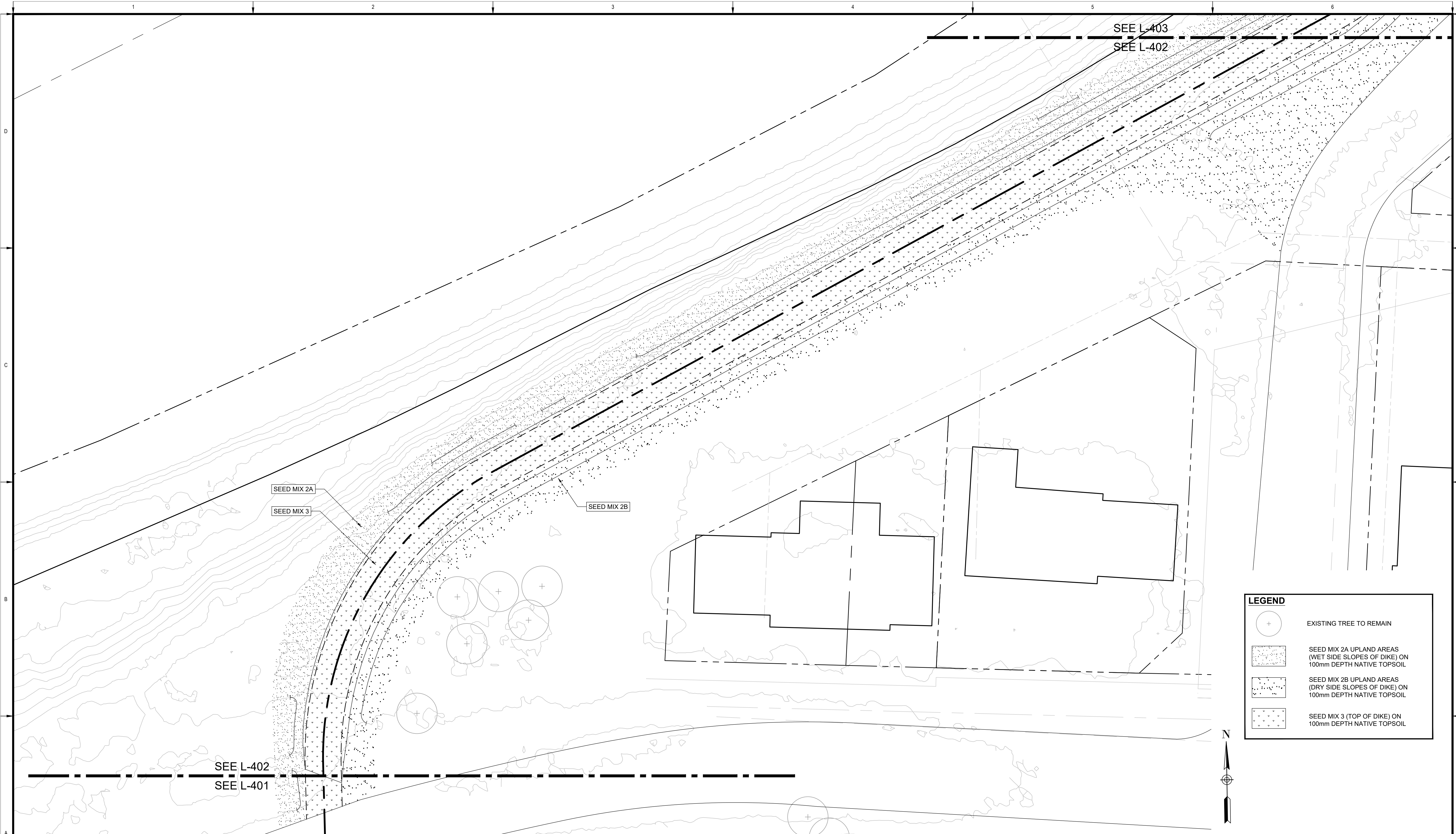
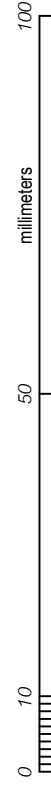
Rev	Date	Des	Dwn	Chk	Description

<b>TOWN OF DRUMHELLER NEWCASTLE DIKE</b>			
<b>SEEDING PLAN</b>			
Project No.	133142	Drawing No.	L-401
Group	LANDSCAPE	Rev.	2

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SEED MIX 2A  
SEED MIX 3

SEED MIX 2B

SEE L-402  
SEE L-401

SEE L-403  
SEE L-402

LEGEND	
	EXISTING TREE TO REMAIN
	SEED MIX 2A UPLAND AREAS (WET SIDE SLOPES OF DIKE) ON 100mm DEPTH NATIVE TOPSOIL
	SEED MIX 2B UPLAND AREAS (DRY SIDE SLOPES OF DIKE) ON 100mm DEPTH NATIVE TOPSOIL
	SEED MIX 3 (TOP OF DIKE) ON 100mm DEPTH NATIVE TOPSOIL



**PLAN**  
Scale 1:200

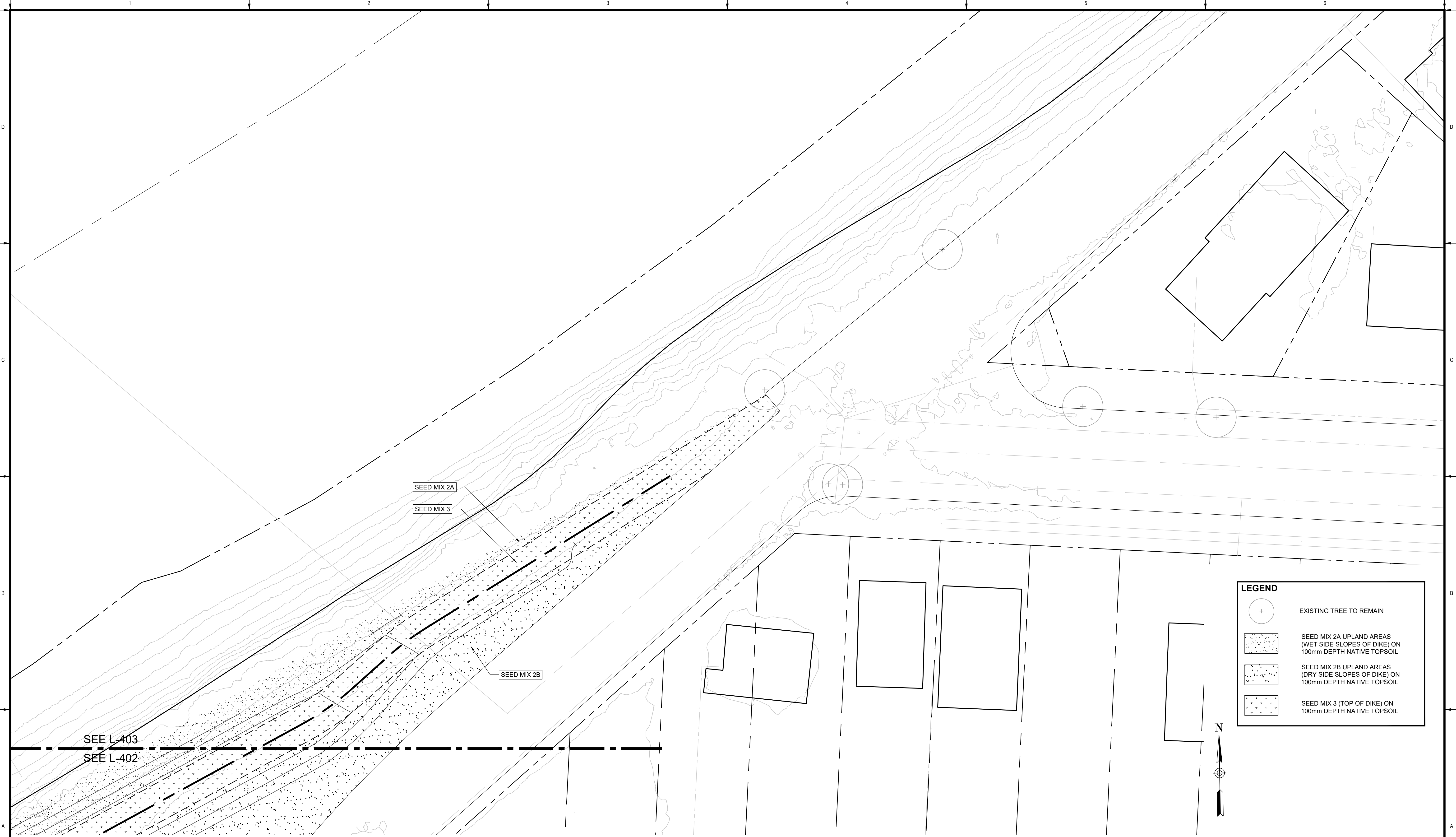
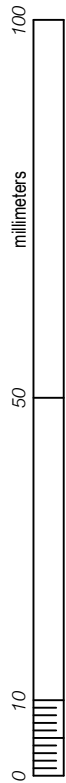


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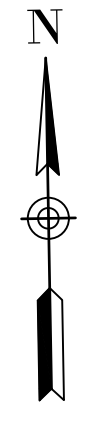
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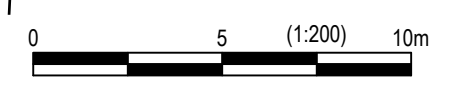
TOWN OF DRUMHELLER NEWCASTLE DIKE			
<b>SEEDING PLAN</b>			
Project No.	133142	Drawing No.	
Group	LANDSCAPE		
			<b>L-402</b>
			<b>2</b>



LEGEND	
	EXISTING TREE TO REMAIN
	SEED MIX 2A UPLAND AREAS (WET SIDE SLOPES OF DIKE) ON 100mm DEPTH NATIVE TOPSOIL
	SEED MIX 2B UPLAND AREAS (DRY SIDE SLOPES OF DIKE) ON 100mm DEPTH NATIVE TOPSOIL
	SEED MIX 3 (TOP OF DIKE) ON 100mm DEPTH NATIVE TOPSOIL



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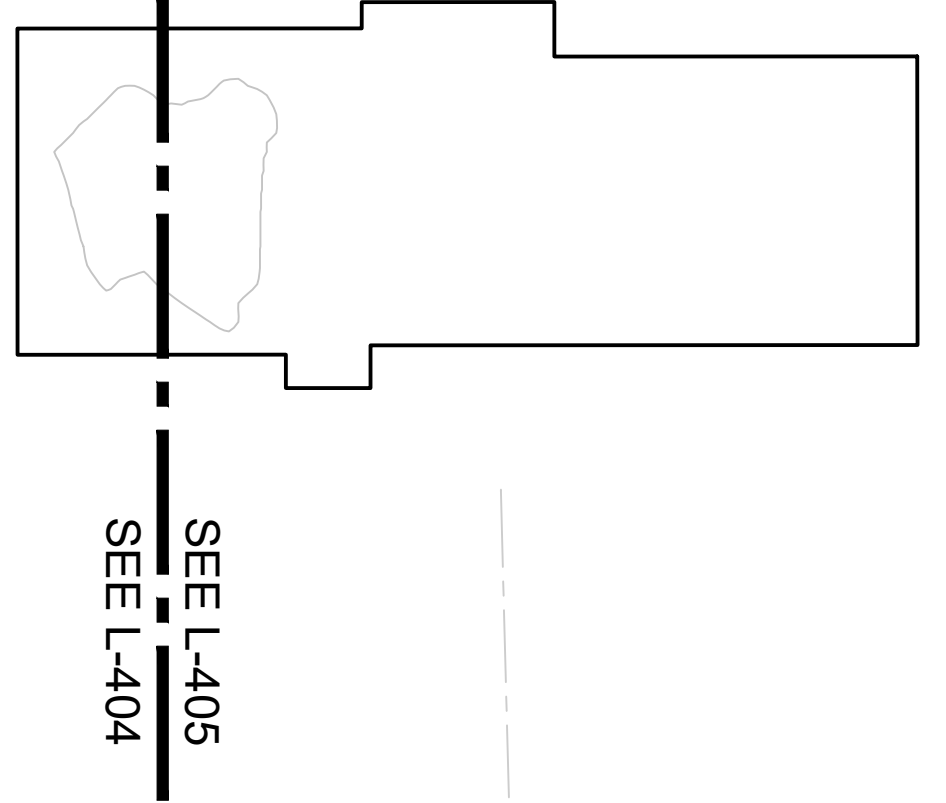
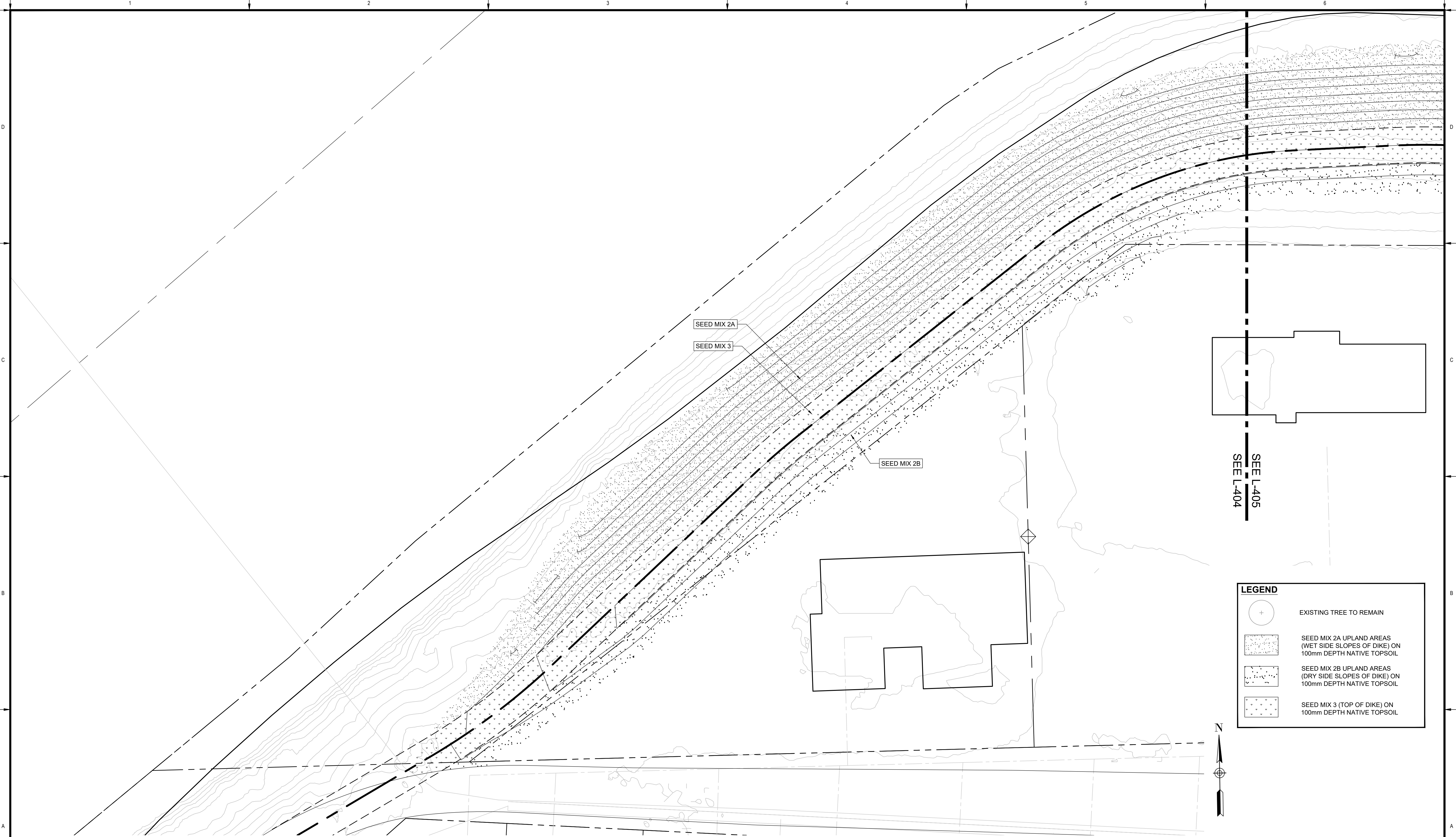
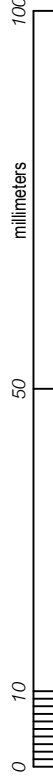
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Rev	Date	Des	Dwn	Chk	Description

<b>TOWN OF DRUMHELLER NEWCASTLE DIKE</b>	
<b>SEEDING PLAN</b>	
Project No. <b>133142</b>	Drawing No. <b>L-403</b>
Group <b>LANDSCAPE</b>	Rev. <b>2</b>

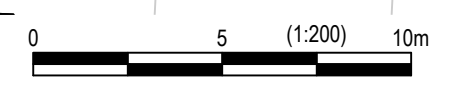
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LEGEND	
	EXISTING TREE TO REMAIN
	SEED MIX 2A UPLAND AREAS (WET SIDE SLOPES OF DIKE) ON 100mm DEPTH NATIVE TOPSOIL
	SEED MIX 2B UPLAND AREAS (DRY SIDE SLOPES OF DIKE) ON 100mm DEPTH NATIVE TOPSOIL
	SEED MIX 3 (TOP OF DIKE) ON 100mm DEPTH NATIVE TOPSOIL

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Rev	Date	Des	Dwn	Chk	Description

**TOWN OF DRUMHELLER  
 NEWCASTLE DIKE**

**SEEDING PLAN**

Project No. **133142** Drawing No. **L-404** Rev. **2**  
 Group **LANDSCAPE**

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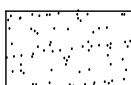
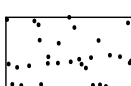
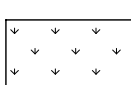
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SEED MIX 2B

SEE L-406  
SEE L-405

SEE L-405  
SEE L-404

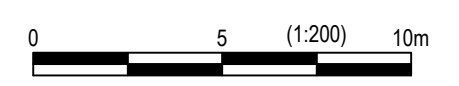
**LEGEND**

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-  SEED MIX 2A UPLAND AREAS (WET SIDE SLOPES OF DIKE) ON 100mm DEPTH NATIVE TOPSOIL
-  SEED MIX 2B UPLAND AREAS (DRY SIDE SLOPES OF DIKE) ON 100mm DEPTH NATIVE TOPSOIL
-  SEED MIX 3 (TOP OF DIKE) ON 100mm DEPTH NATIVE TOPSOIL



**PLAN**

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Rev	Date	Des	Dwn	Chk	Description

TOWN OF DRUMHELLER  
NEWCASTLE DIKE

SEEDING PLAN

Project No. 133142  
Group LANDSCAPE

Drawing No.

**L-405** Rev. **2**

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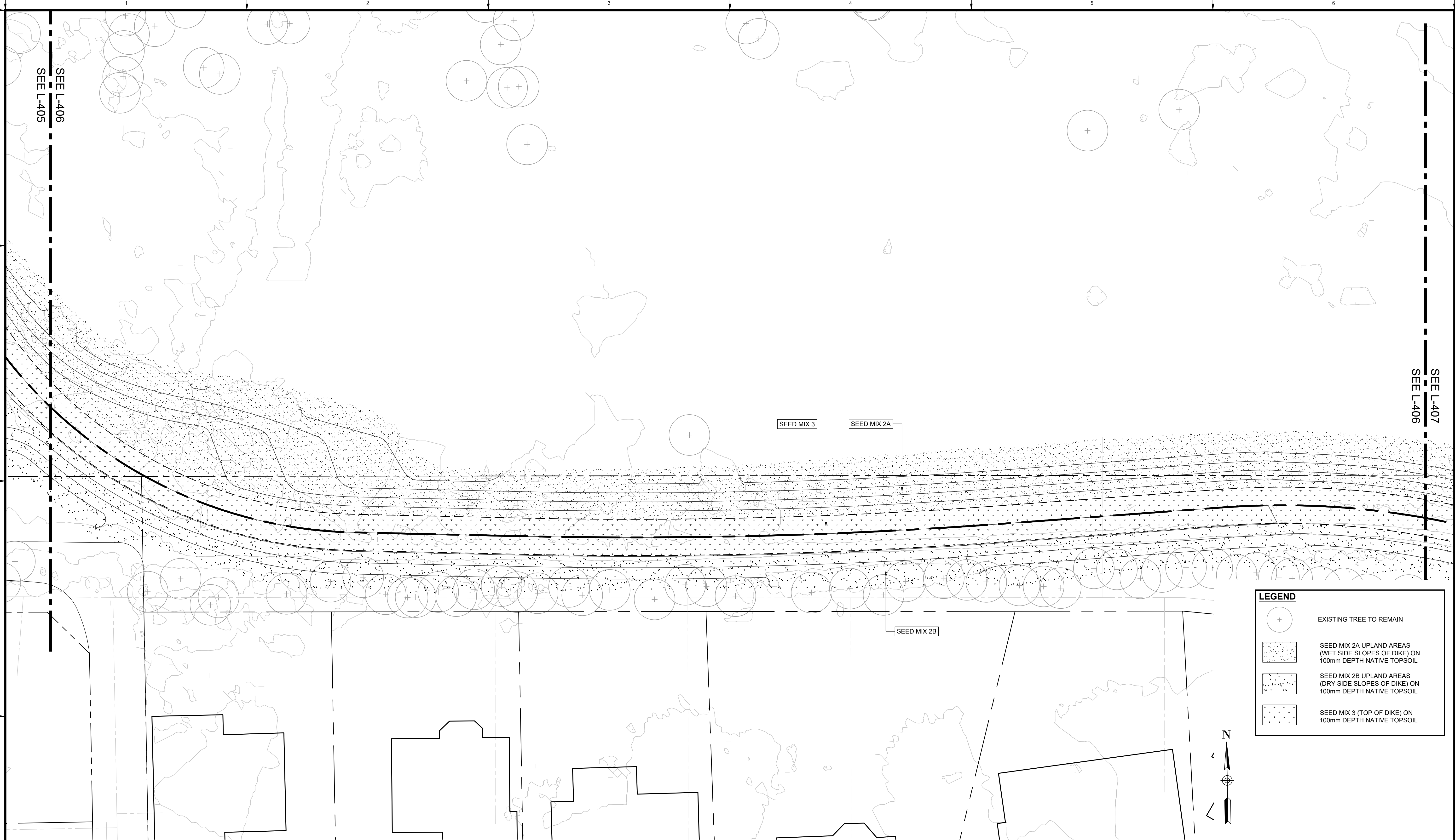
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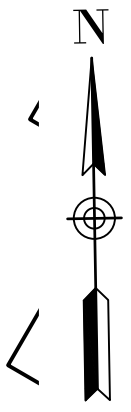


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SEE L-405

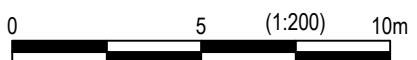
SEE L-407  
SEE L-406



LEGEND	
	EXISTING TREE TO REMAIN
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	SEED MIX 2B UPLAND AREAS (DRY SIDE SLOPES OF DIKE) ON 100mm DEPTH NATIVE TOPSOIL
	SEED MIX 3 (TOP OF DIKE) ON 100mm DEPTH NATIVE TOPSOIL



PLAN  
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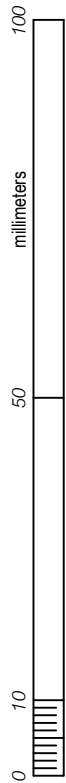
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<b>TOWN OF DRUMHELLER NEWCASTLE DIKE</b>	
<b>SEEDING PLAN</b>	
Project No. <b>133142</b>	Drawing No. <b>L-406</b>
Group <b>LANDSCAPE</b>	Rev. <b>2</b>



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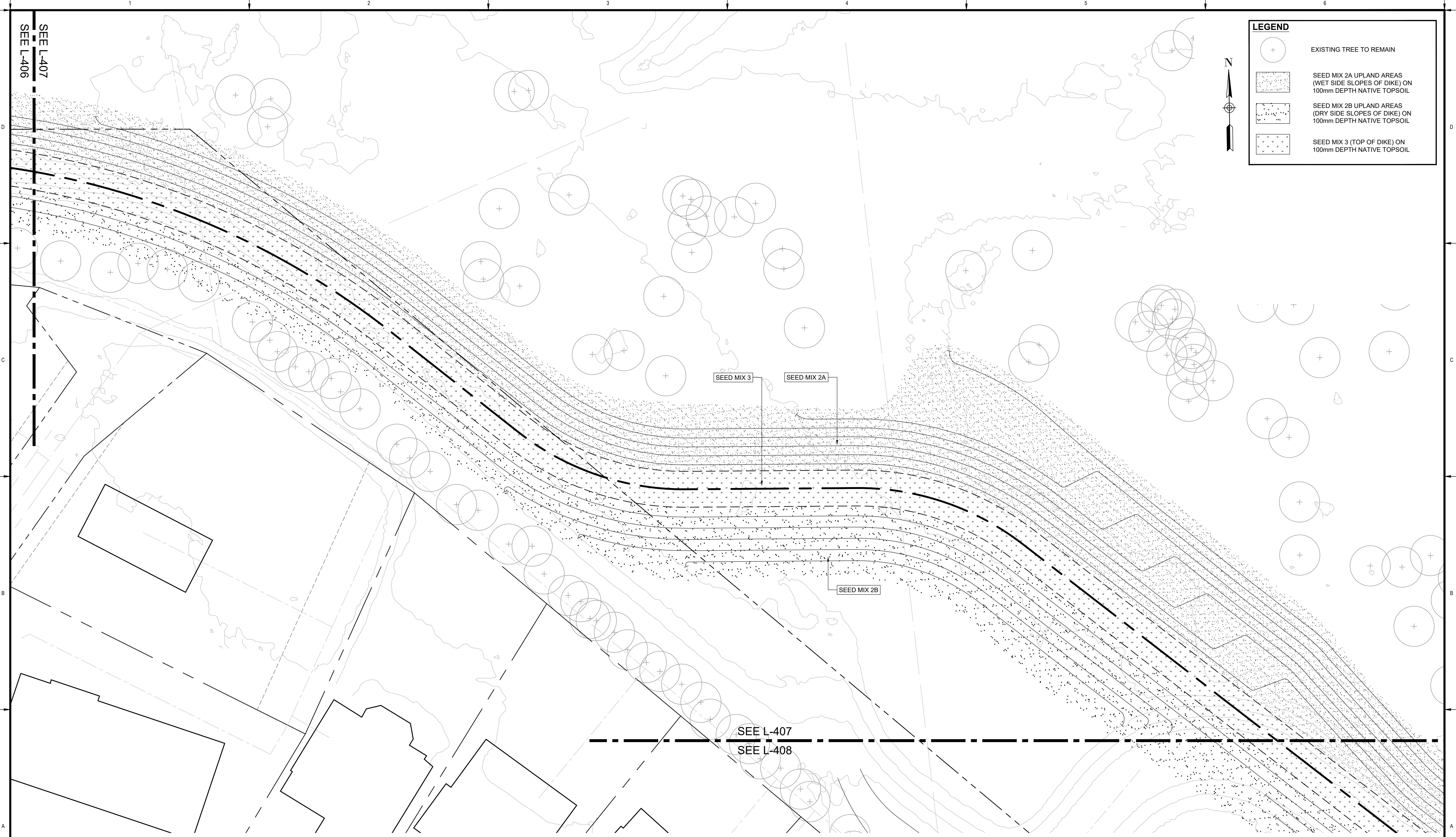
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SEE L-407  
SEE L-406

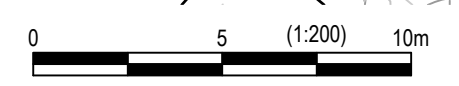
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- SEED MIX 2B UPLAND AREAS (DRY SIDE SLOPES OF DIKE) ON 100mm DEPTH NATIVE TOPSOIL
- SEED MIX 3 (TOP OF DIKE) ON 100mm DEPTH NATIVE TOPSOIL



**PLAN**

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0	2022-06-29	BB	MD	EJW	ISSUED FOR TENDER
1	2022-07-07	BB	MD	EJW	ISSUED FOR ADDENDUM #1
2	2022-08-11	BB	MD	EJW	ISSUED FOR CONSTRUCTION

Rev	Date	Des	Dwn	Chk	Description

**TOWN OF DRUMHELLER  
NEWCASTLE DIKE**

**SEEDING PLAN**

Project No. **133142** Drawing No. **L-407** Rev. **2**

Group **LANDSCAPE**

SAVED: 2022/08/11 10:45 AM

Paper Size = ANSI D  
 At Full Size, this border measures 520 mm x 800 mm



SEE L-407  
 SEE L-408

**LEGEND**

- EXISTING TREE TO REMAIN
- SEED MIX 2A UPLAND AREAS (WET SIDE SLOPES OF DIKE) ON 100mm DEPTH NATIVE TOPSOIL
- SEED MIX 2B UPLAND AREAS (DRY SIDE SLOPES OF DIKE) ON 100mm DEPTH NATIVE TOPSOIL
- SEED MIX 3 (TOP OF DIKE) ON 100mm DEPTH NATIVE TOPSOIL



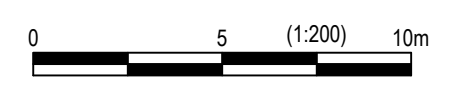
SEED MIX 3

SEED MIX 2A

SEED MIX 2B

SEE L-409  
 SEE L-408

**PLAN**  
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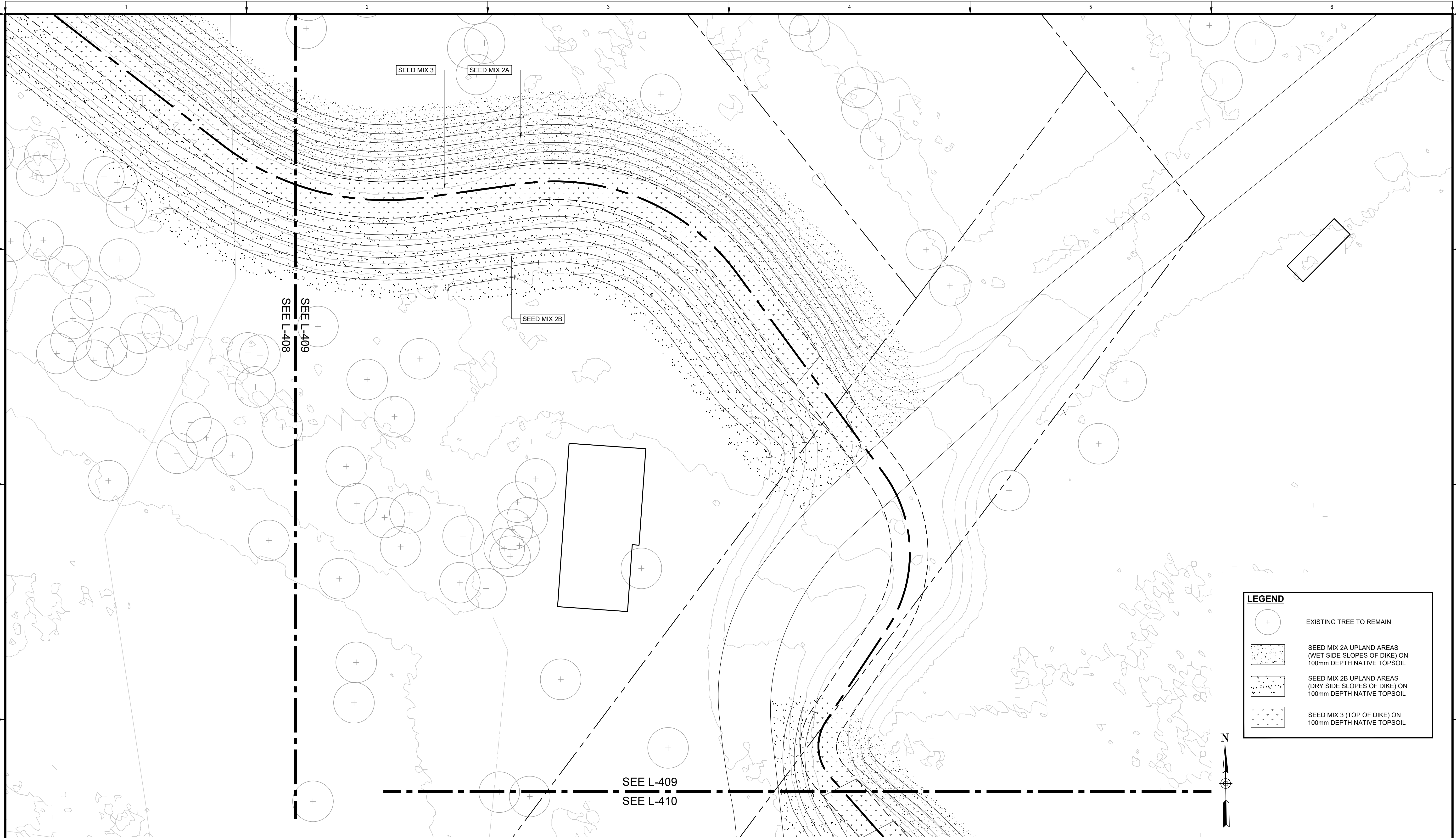
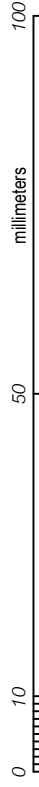
TOWN OF DRUMHELLER  
 NEWCASTLE DIKE

SEEDING PLAN

Project No. 133142  
 Group LANDSCAPE

Drawing No.

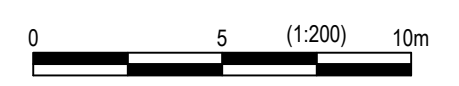
**L-408** Rev. **2**



LEGEND	
	EXISTING TREE TO REMAIN
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	SEED MIX 3 (TOP OF DIKE) ON 100mm DEPTH NATIVE TOPSOIL



**PLAN**



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<b>TOWN OF DRUMHELLER NEWCASTLE DIKE</b>	
<b>SEEDING PLAN</b>	
Project No. <b>133142</b>	Drawing No. <b>L-409</b>
Group <b>LANDSCAPE</b>	Rev. <b>2</b>

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At Full Size, this border measures 520 mm x 800 mm  
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SEE L-411  
SEED MIX 2B  
SEED MIX 3  
SEED MIX 2B  
LEGEND  
EXISTING TREE TO REMAIN  
SEED MIX 2A UPLAND AREAS  
(WET SIDE SLOPES OF DIKE) ON  
100mm DEPTH NATIVE TOPSOIL  
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(DRY SIDE SLOPES OF DIKE) ON  
100mm DEPTH NATIVE TOPSOIL  
SEED MIX 3 (TOP OF DIKE) ON  
100mm DEPTH NATIVE TOPSOIL  
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Rev 0 2022-06-29 BB MD E JW ISSUED FOR TENDER  
Rev 1 2022-07-07 BB MD E JW ISSUED FOR ADDENDUM #1  
Rev 2 2022-08-11 BB MD E JW ISSUED FOR CONSTRUCTION  
TOWN OF DRUMHELLER  
NEWCASTLE DIKE  
SEEDING PLAN  
Project No. 133142 Drawing No. L-410 Rev. 1  
Group LANDSCAPE



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TOWN OF DRUMHELLER NEWCASTLE DIKE			
SEEDING PLAN			
Project No.	133142	Drawing No.	L-410
Group	LANDSCAPE		Rev. 1

SAVE: 2022/08/11 10:45 AM

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At Full Size, this border measures 320 mm x 800 mm

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SEE L-410  
SEE L-411

SEED MIX 2B

SEED MIX 3

SEED MIX 2B

**LEGEND**

- EXISTING TREE TO REMAIN
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TOWN OF DRUMHELLER  
NEWCASTLE DIKE

SEEDING PLAN

Project No. 133142  
Group LANDSCAPE

Drawing No.

Rev. **L-411 2**

**Seed Mix 1 - Wet Tolerant: Seed below 1:2-year high water mark**

- Application rate of 58 kg / ha.

BOTANICAL NAME	COMMON NAME	TARGET COVER	% OF SEED MIX (PLS)	Kg REQUIRED (PLS)
Deschampsia cespitosa	Tufted Hairgrass	25%	3%	1.97
Pascopyrum smithii / Agropyron smithii	Western Wheatgrass	20%	32%	18.60
Bromus carinatus	Mountain Brome	5%	10%	5.68
Elymus trachycaulus / Agropyron trachycaulum var.	Slender Wheatgrass	10%	11%	6.39
Elymus canadensis	Canada Wildrye	15%	23%	13.34
Spartina pectinata	Alkali Cordgrass	25%	21%	11.66

Cover crop for Seed Mix 1 - Wet Tolerant: Slough Grass - Application rate of 5 kg / ha.

**Seed Mix 2A - Upland Areas: Wet side slopes of dike, not likely susceptible to inundation - Application rate of 58 kg / ha.**

BOTANICAL NAME	COMMON NAME	TARGET COVER	% OF SEED MIX (PLS)	Kg REQUIRED (PLS)
Elymus lanceolatus / Agropyron dasystachyum	Northern Wheatgrass	15%	16%	9.30
Pascopyrum smithii / Agropyron smithii	Western Wheatgrass	20%	30%	17.36
Elymus trachycaulus / Agropyron trachycaulum var.	Slender Wheatgrass	10%	10%	5.97
Bouteloua gracilis	Blue Grama	10%	2%	0.88
Elymus canadensis	Canada Wildrye	10%	14%	8.30
Nassella viridula / Stipa viridula	Green Needlegrass	25%	27%	15.82
Koeleria macrantha	Junegrass	10%	1%	0.58

Cover crop for Seed Mix 2A - Upland Areas: Annual Ryegrass - application rate of 5 kg / ha.

**Seed Mix 2B - Upland Areas with low erosion and low risk of washout - Reinstall native topsoil materials and add crop of Lolium multiflorum (Annual Ryegrass) at 10 kg / ha for areas outlined on drawings.**

**Seed Mix 3 - Top of Dike - application rate of 50 kg / ha.**

BOTANICAL NAME	COMMON NAME	TARGET COVER	% OF SEED MIX (PLS)	Kg REQUIRED (PLS)
Elymus lanceolatus / Agropyron dasystachyum	Northern Wheatgrass	23%	46%	22.91
Pascopyrum smithii / Agropyron smithii	Western Wheatgrass	10%	23%	11.16
Bouteloua gracilis	Blue Grama	20%	6%	2.83
Hesperostipa comata / Stipa comata	Needle and Thread	2%	4%	2.13
Poa sandbergii	Sandberg Bluegrass	15%	6%	3.07
Nassella viridula / Stipa viridula	Green Needlegrass	5%	9%	4.24
Koeleria macrantha	Junegrass	23%	4%	2.13
Dalea purpurea	Purple Prairie Clover	2%	2%	1.02

Cover crop for Seed Mix 3 - Top of dike: Annual Ryegrass - application rate of 5 kg / ha.

**SEEDING NOTES**

- ENSURE SEED MIXTURE IS FREE OF ANY WEED SEEDS LISTED AS "PROHIBITED NOXIOUS" OR "NOXIOUS" UNDER THE WEED CONTROL ACT AND SEEDS OF OTHER SPECIES THAT WILL INTERFERE WITH THE GROWTH OF THE SPECIFIED SEED MIXTURE.
- SOW AT THE RATE INDICATED WITH SEED MIXES, DURING CALM WEATHER AND WHEN SOIL MOISTURE CONTENT IS ADEQUATE FOR GERMINATION.
- FOR SLOPES 2:1 OR FLATTER AREAS TO BE SEEDED THAT ARE EASILY ACCESSIBLE APPLY SEED USING A MECHANICAL DRY SPREAD "BRILLION" SEEDER THAT PLACES SEED AT SPECIFIED DEPTH AND RATE AND ROLLS IN A SINGLE OPERATION.
- FOR STEEPER THAN 2:1 SLOPES OR SLOPES THAT ARE NOT EASILY ACCESSIBLE USE MANUALLY OPERATED BROADCAST SEEDER.
- SOW SEED IN TWO DIRECTIONS, 50% OF SEED IN ONE DIRECTION AND REMAINING 50% OF SEED AT RIGHT ANGLES TO FIRST SEEDING PATTERN, USING SAME METHOD OF SEEDING.
- COVER BROADCASTED SEED BY HAND RAKING AND ATV HARROWING-IN.
- OPTIMAL SEEDING PERIODS FOR NATIVE GRASSES:
  - MID TO LATE MAY, EARLY JUNE - NO LATER THAN JUNE 15TH.
  - LATE SEPTEMBER - AFTER FIRST HARD FROST WHEN PLANTS GO DORMANT. DO NOT SEED NEAR END OF SEASON UNTIL THE RISK OF SEED GERMINATION IS LOW. SEED THAT GERMINATES AND DOES NOT FULLY ESTABLISH PRIOR TO END OF GROWING SEASON WILL LIKELY NOT OVERWINTER.
- WATER THE SEEDED AREAS AFTER SEEDING TO ACHIEVE GERMINATION AND A UNIFORM STAND OF GRASS. THE OWNER WILL DETERMINE THE WATERING SCHEDULE AND WILL PROVIDE THE CONTRACTOR WITH AT LEAST 24 HOURS ADVANCE NOTICE TO COMMENCE WATERING SEEDED AREAS.
- APPLY WATER UNIFORMLY TO SEEDED AREAS WITHOUT CAUSING DISPLACEMENT OR EROSION OF THE MATERIALS AND TOPSOIL.
- MINIMIZE TRAVEL ON SEEDED SURFACES.
- USE WATERING EQUIPMENT AND TECHNIQUES AUTHORIZED BY THE OWNER.



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<b>TOWN OF DRUMHELLER NEWCASTLE DIKE</b>			
<b>SEEDING NOTES</b>			
Project No.	133142	Drawing No.	
Group	LANDSCAPE		
		<b>L-412</b>	<b>2</b>