

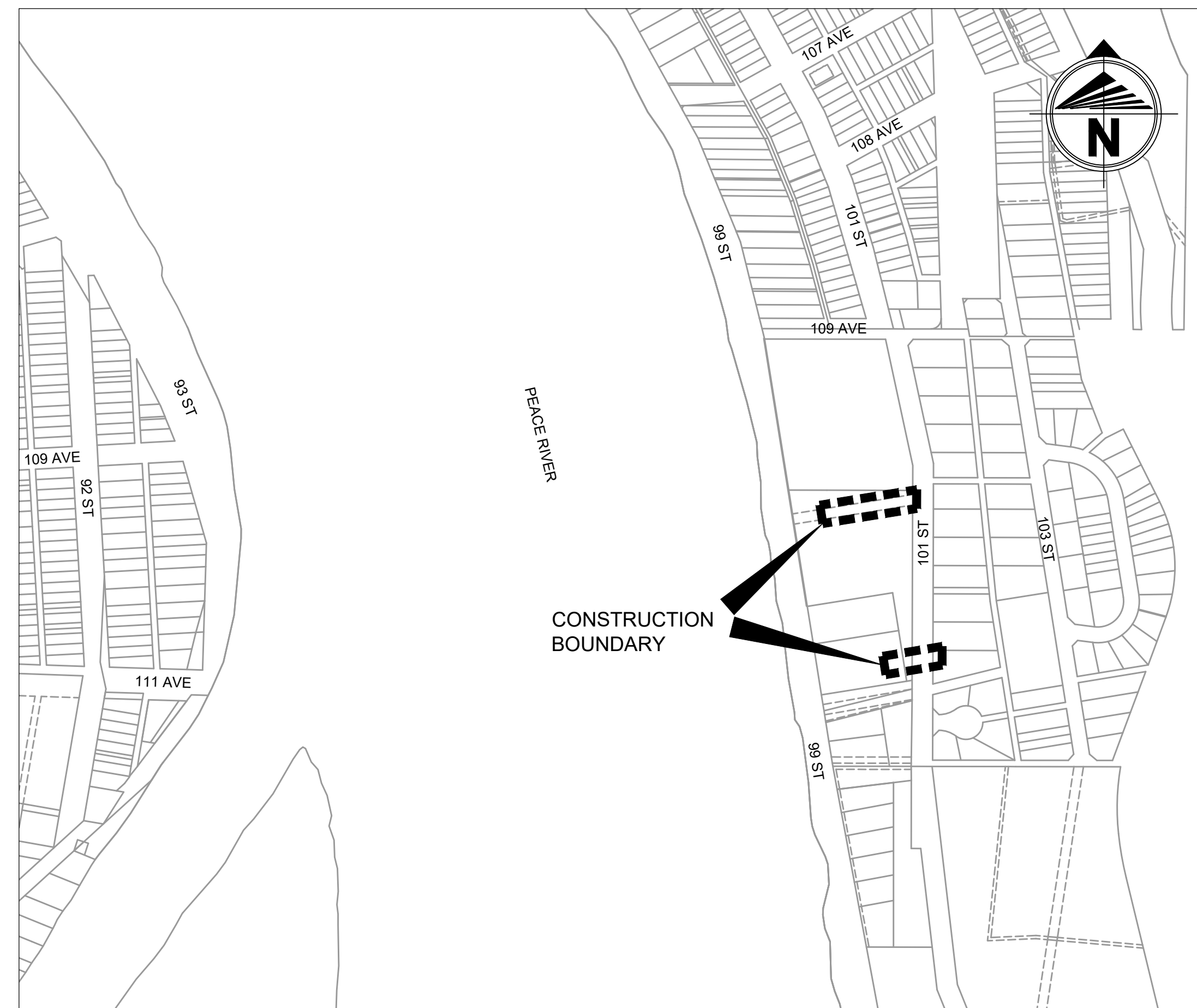


# TOWN OF PEACE RIVER

## 101 Street Storm Sewer

### 2023 Design Drawings

**NOT FOR  
CONSTRUCTION**



**SITE PLAN**  
Scale 1:4000

Developer:	TOWN OF PEACE RIVER
Consultant:	BEAIRSTO & ASSOCIATES ENGINEERING LTD.
Underground:	
Road Works:	
Start Date:	
Completion Date:	
No. of Lots: -	No. of Drawings: 7

REVISIONS		
#	COMMENTS	DATE
1	FOR DISCUSSION PURPOSES ONLY	July 14, 2023
2	ISSUED FOR REVIEW	Aug 11, 2023
3	ISSUED FOR TENDER	Aug 18, 2023
4	ISSUED FOR TENDER - REV. 1	Aug 29, 2023
5		
6		

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A:\2023\20230616067\Drawings\20230616067\Drawings\20230616067.dwg, 6/16/2023, 11:42:27 AM, ksharma

## LIST OF DRAWINGS

CO-01 COVER SHEET  
G-01 DRAWING SET INFORMATION

### OVERALL CONSTRUCTION PLANS

EX-01 EXISTING SITE PLAN  
OU-01 OVERALL UTILITIES  
SR-01 WASHOUT REPAIR

### PLAN AND PROFILES

PP-01 STORM LINE PLAN AND PROFILE

### DETAILS

DT-01 DETAILS

## ABBREVIATIONS

AB	AGGREGATE BASE
AC	ACRES
ACP	ASPHALTIC CONCRETE PAVEMENT
APPROX	APPROXIMATE
AQ	AQUATERRA
AT	ALBERTA TRANSPORTATION
AVE	AVENUE
BC	BEGINNING OF CURVE
BLVD	BOULEVARD
BOP	BEGINNING OF PLAN/PROFILE
CB	CATCH BASIN
CBMH	CATCH BASIN MANHOLE
CI	CAST IRON
CIP	CAST IRON PIPE
CL	CENTERLINE
CONC	CONCRETE
CSP	CORRUGATED STEEL PIPE
CY	CUBIC YARD
CW	COMPLETE WITH
DESC	DESCRIPTION
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
E	EAST
EC	END OF CURVE
EL	ELEVATION
EOP	END OF PLAN/PROFILE
EX	EXISTING
FH	FIRE HYDRANT
F&C	FRAME AND COVER
GBC	GRANULAR BASE COURSE
HYD	HYDRANT
ID	IDENTIFICATION
INV	INVERT
MAX	MAXIMUM
MH	MANHOLE
MIN	MINIMUM
MONO	MONOLITHIC
N	NORTH
NTS	NOT TO SCALE
NO	NUMBER
OD	OUTSIDE DIAMETER
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PR	PROPOSED
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
PVI	POINT OF VERTICAL INTERSECTION
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
RP	RADIUS POINT
REV	REVISION
RGS	RIGID STEEL
RD	ROAD
S	SOUTH
SALV	SALVAGE
SAN	SANITARY
SHT	SHEET
STA	STATION
STM	STORM
ST	STREET
TRM	TURF REINFORCEMENT MATTING
TYP	TYPICAL
VIR	VIDEO INSPECTION RISER
W	WEST
WTM	WATERMAIN

## LINETYPE & SYMBOLS

	EXISTING	PROPOSED
SANITARY		
WATER		
STORM		
POWER		
OVERHEAD POWER		
GAS		
HIGH PRESSURE GAS		
TELUS		
DUCT		
TELUS - FIBRE OPTIK		
CITY - FIBRE OPTIK		
COMMUNICATIONS		
DITCH - BACKSLOPE		
DITCH - CENTERLINE		
DITCH - TOE		
SWALE		
UTILITY LOT BARRIER		
FENCE		
FENCE - BOLLARD		
FENCE - CHAINLINK		
FENCE - WOOD		
FENCE - SILT		
CONTOURS		
DISTURBED GROUND EXTENTS		
SPOT ELEVATIONS		
ROADWAY BARRICADE		
MANHOLE / CATCHBASIN		
HYDRANT		
MAIN WATER VALVE		
AIR RELEASE VALVE		
SERVICE WATER VALVE		
BLOW-OFF VALVE		
VIDEO INSPECTION RISER/CLEANOUT		
SERVICE RISER		
INSULATED PIPE/SERVICE		
SERVICE INVERT		
STREET LIGHT		
PEDESTAL		
TRANSFORMER		
JUNCTION BOX		
VAULT / TELUS MANHOLE		
POWER POLE		
STREET SIGN		
TREE		
BOREHOLE		
SIDEWALK RAMP		
SIDEWALK RAMP TYPE		

## MATERIALS KEY

	EXISTING	PROPOSED
CONCRETE		
GRAVEL		
BRICK		
ASPHALT		
ACP MILL		
ACP OVERLAY		
FULL DEPTH RECLAMATION (FDR)		
FULL RECONSTRUCTION		
LANDSCAPE AREA		
CONCRETE SPOT REPLACEMENT		

## NOTES

### GENERAL

- ONLY "ISSUED FOR CONSTRUCTION" DRAWINGS ONCE SIGNED AND SEALED CAN BE USED FOR CONSTRUCTION.
- DRAWINGS ARE NOT TO BE SCALED FOR DETAILED MEASUREMENTS.
- VERIFY ALL DIMENSIONS, DATUMS, AND LEVELS PRIOR TO COMMENCEMENT OF WORK. REPORT ANY DISCREPANCIES OR OMISSIONS TO THE DESIGNER IMMEDIATELY.
- INFORMATION ON THIS DRAWING WHICH PERTAINS TO EXISTING STRUCTURES MAY BE INCOMPLETE OR IN ERROR. THE CONTRACTOR SHALL VERIFY ALL SUCH INFORMATION PRIOR TO THE START OF CONSTRUCTION.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE TOWN OF PEACE RIVER MINIMUM DESIGN STANDARDS (2015) AND CITY OF GRANDE PRAIRIE DESIGN/CONSTRUCTION MANUAL (2022) UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL HAVE ALL ABOVE GROUND AND UNDERGROUND UTILITIES AND PIPELINES LOCATED PRIOR TO CONSTRUCTION.

### STORM NOTES

- BACKFILL IS TO BE COMPACTED NATIVE 100% SPD ON CLASS B-1 SAND BEDDING UNLESS OTHERWISE NOTED. (300mm LIFTS PARALLEL TO CURBS, 150mm LIFTS PERPENDICULAR TO CURBS) IF WATER TABLE ENCOUNTERED, USED WASHED ROCK AS OPPOSED TO SAND. GRADATION OF WASHED ROCK TO BE APPROVED BY ENGINEER.
- ALL STORM SEWER MAINS TO BE VIDEO INSPECTED USING SIMULATED FLOW.
- MANHOLE RIM ELEVATIONS ARE DESIGN ELEVATIONS. THE CONTRACTOR IS TO CONFIRM ELEVATIONS WITH THE ENGINEER BEFORE INSTALLATION.
- REFER TO THE TABLE ON MO-01 FOR MANHOLE BARREL SIZES AND FRAME AND COVER TYPES.
- ALL INSULATED STORM SEWER TO BE PRE-INSULATED URECON OR EQUIVALENT.
- ALL CATCHBASINS AND CATCHBASIN MANHOLES TO HAVE 600mm SUMPS.
- ALL MANHOLES, CATCHBASINS AND CATCHBASIN MANHOLES REQUIRING LADDER RUNGS WITHIN ROAD TOP TO BE COMPLETED AS PER TOWN OF PEACE RIVER GENERAL MUNICIPAL SERVICING STANDARDS (2009) AND WILL ALSO BE INSPECTED AT FAC.
- ALL WORK TO BE COMPLETED TO TOWN OF PEACE RIVER GENERAL MUNICIPAL SERVICING STANDARDS (2009). CONSTRUCTION DETAILS AND REQUIREMENTS TO BE FOLLOWED AS PER MANUAL.

### SHALLOW UTILITY NOTES

- THE KNOWN COMPANIES, OWNERS AND OPERATORS WITH UTILITIES IN OR NEAR THE CONSTRUCTION BOUNDARY INCLUDE:

ATCO GAS: 1-780-624-4802  
TOLL FREE: 1-888-420-3464  
EMERGENCY: 1-877-496-9380

ATCO ELECTRIC: 1-800-662-2248  
EMERGENCY: 1-800-668-5506

TELUS COMMUNICATIONS: 1-780-310-CUTS  
HIT TELUS LINE: 1-780-310-2887  
AB ONE CALL: 1-800-272-3447

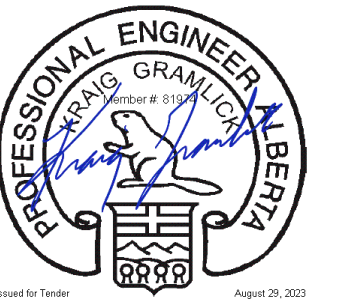
EASTLINK: 1-888-345-1111

TOWN OF PEACE RIVER: (DEVIN BRAUN) 1-780-624-3085

- ADJUSTMENT OF UTILITIES MAY OCCUR CONCURRENTLY WITH THE PROPOSED CONSTRUCTION. DEPENDANT ON THE MAGNITUDE AND DEGREE OF ADJUSTMENTS REQUIRED. THE WORK MAY NOT BE COMPLETED UNTIL THE LATER STAGES OF CONSTRUCTION OPERATIONS. IN THAT EVENT, THE CONTRACTOR SHALL BE REQUIRED TO ARRANGE THEIR OPERATION CLEAR OF THOSE UTILITIES UNTIL THE ADJUSTMENTS ARE COMPLETE.

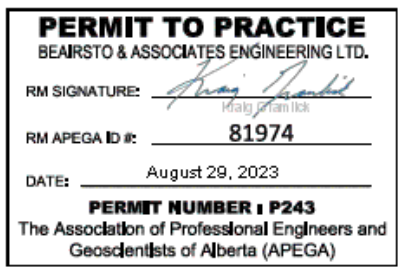
- THE CONTRACTOR SHALL ENSURE THAT ALL SHALLOW UTILITIES ARE PROTECTED AND/OR RESTORED AS PER THE DIRECTION OF THE SHALLOW UTILITY COMPANIES. AS SUCH, THE CONTRACTOR IS REQUIRED TO WORK CLOSELY WITH THE SHALLOW UTILITY COMPANIES THROUGHOUT THE PROJECT.
- ENSURE ALL CONDUITS PLACED AT ROAD CROSSINGS HAVE A MINIMUM OF 1.00m COVER BELOW THE LOWEST GUTTER LINE AND ARE EXTENDED 1.5m BEHIND CONCRETE.

SEAL



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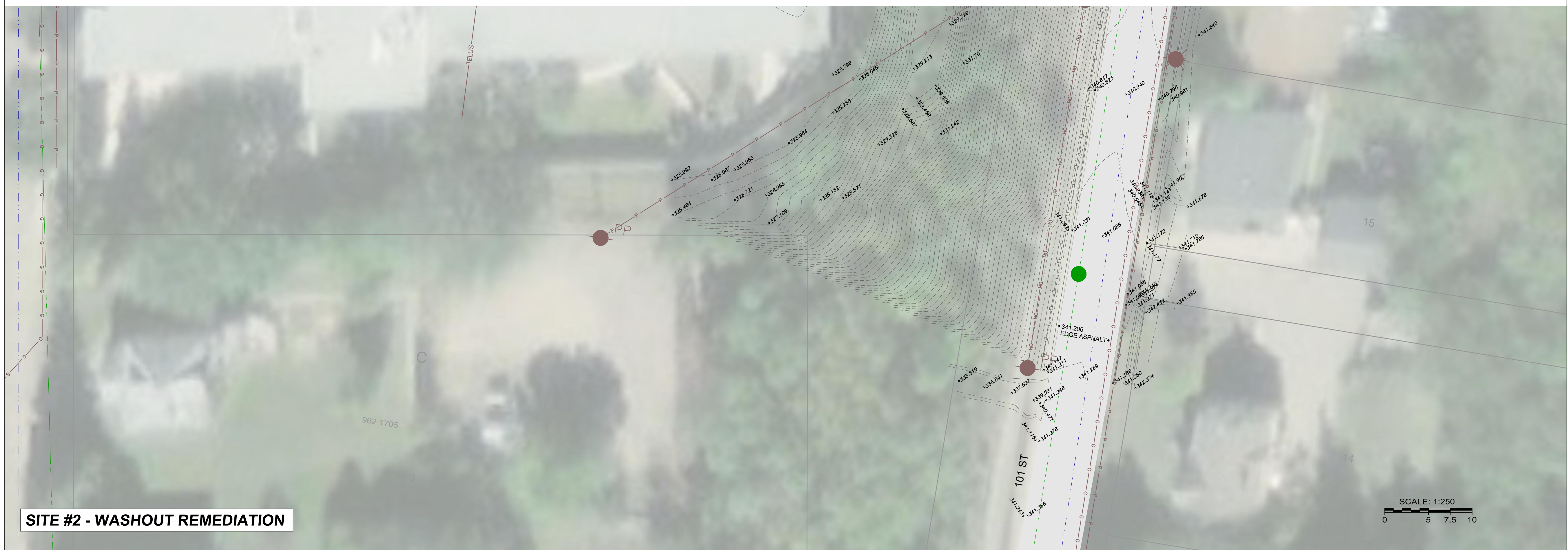
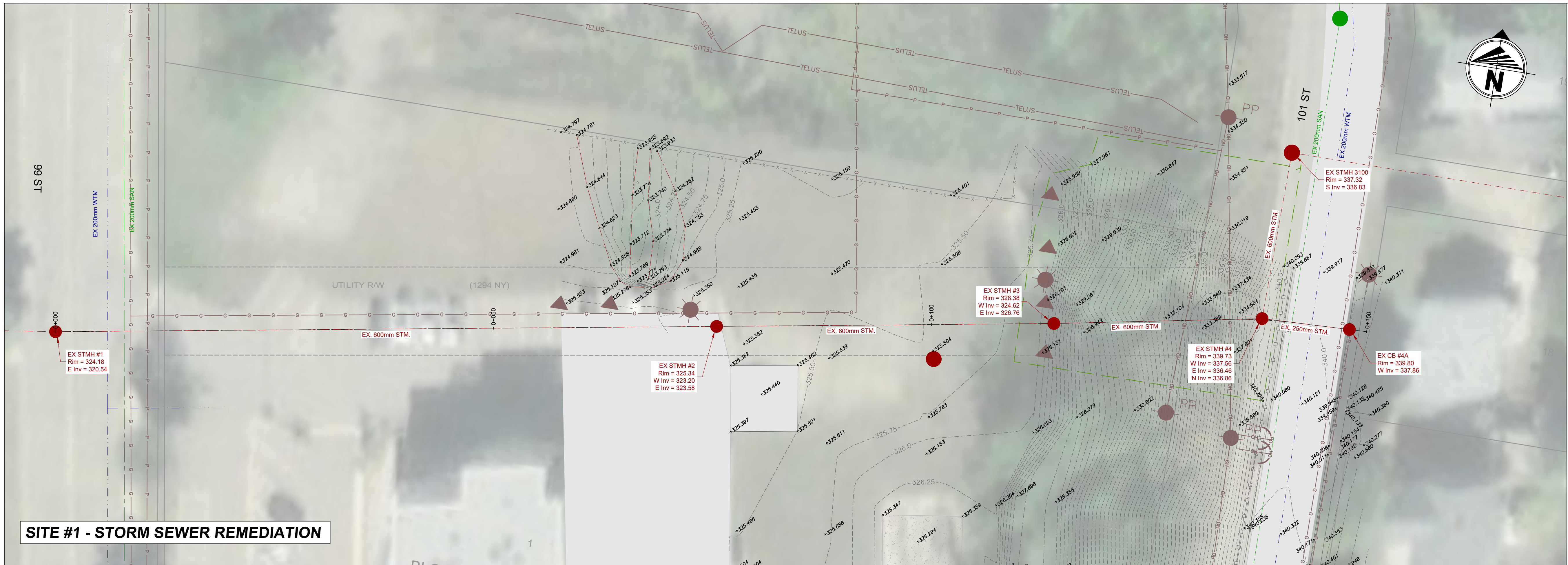
TECHNOLOGIST / TECHNICIAN:	T. Beer / M. Lazaruk
DESIGNER:	B. Major, P. Eng.
REVIEWED BY:	K. Gramlick, P. Eng.
RESPONSIBLE ENGINEER:	K. Gramlick, P. Eng.
DATE:	July 2023
SCALE:	N/A

PROJECT NO. **20GEME6067**

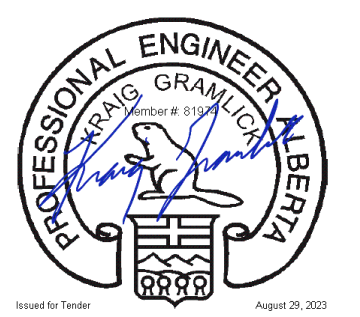
PROJECT NAME  
**TOWN OF PEACE RIVER  
101 STREET STORM SEWER**

DRAWING DESCRIPTION  
**DRAWING SET INFORMATION**

DRAWING NO. **G-01**



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 BEARSTO & ASSOCIATES ENGINEERING LTD.  
 RM SIGNATURE: *K. Gramlick*  
 RM APEGA ID #: 81974  
 DATE: August 29, 2023  
**PERMIT NUMBER: P243**  
 The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

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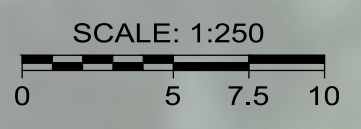
TECHNOLOGIST / TECHNICIAN: T. Beer / M. Lazaruk  
 DESIGNER: B. Major, P. Eng.  
 REVIEWED BY: K. Gramlick, P. Eng.  
 RESPONSIBLE ENGINEER: K. Gramlick, P. Eng.  
 DATE: July 2023  
 SCALE: 1:250

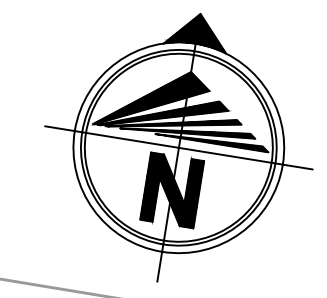
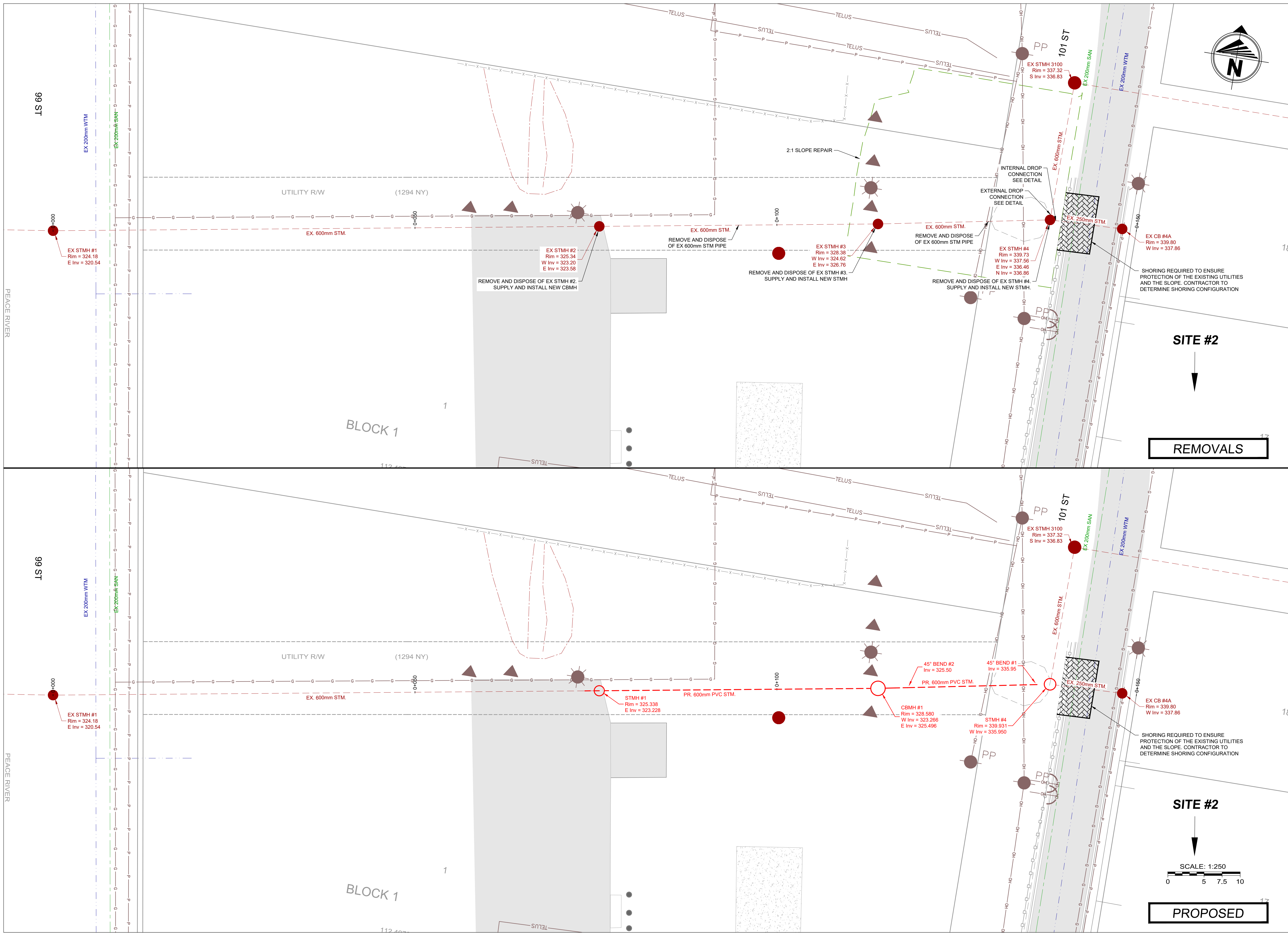
PROJECT NO. 20GEME6067

PROJECT NAME  
**TOWN OF PEACE RIVER  
 101 STREET STORM SEWER**

DRAWING DESCRIPTION  
**EXISTING SITE PLAN**

DRAWING NO. **EX-01**





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DESIGNER: B. Major, P. Eng.  
REVIEWED BY: K. Gramlick, P. Eng.  
RESPONSIBLE ENGINEER: K. Gramlick, P. Eng.

DATE: July 2023  
SCALE: 1:250

PROJECT NO. 20GEME6067

PROJECT NAME  
**TOWN OF PEACE RIVER  
101 STREET STORM SEWER**

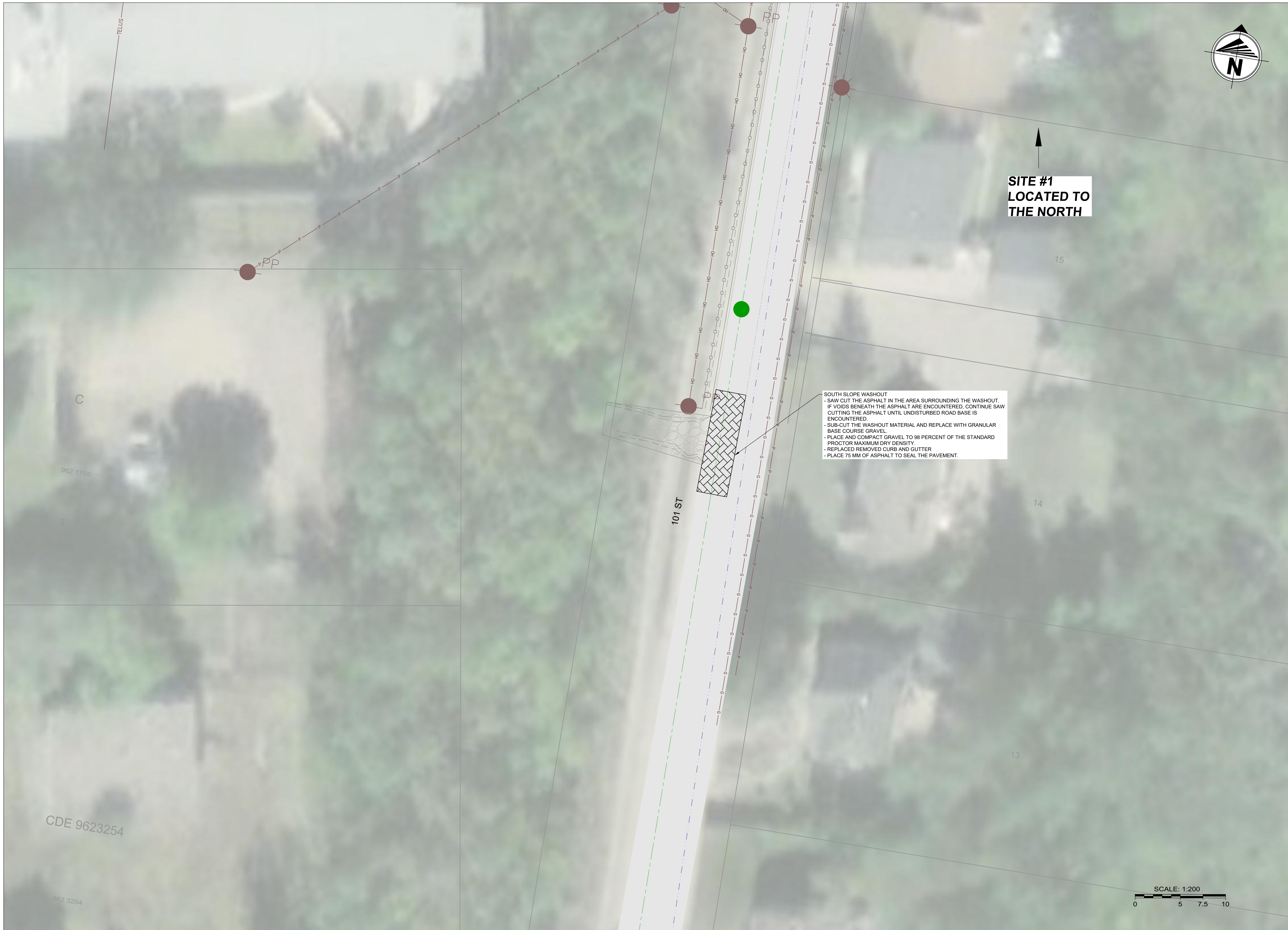
DRAWING DESCRIPTION  
**OVERALL UTILITIES**

DRAWING NO. **OU-01**

**REMOVALS**

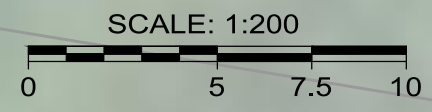
**PROPOSED**

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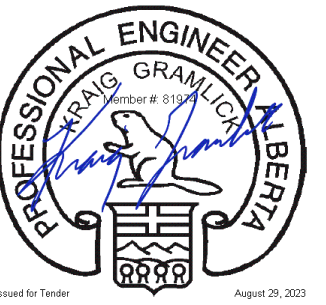
**SITE #1  
LOCATED TO  
THE NORTH**

**SOUTH SLOPE WASHOUT**  
 - SAW CUT THE ASPHALT IN THE AREA SURROUNDING THE WASHOUT.  
 - IF VOIDS BENEATH THE ASPHALT ARE ENCOUNTERED, CONTINUE SAW CUTTING THE ASPHALT UNTIL UNDISTURBED ROAD BASE IS ENCOUNTERED.  
 - SUB-CUT THE WASHOUT MATERIAL AND REPLACE WITH GRANULAR BASE COURSE GRAVEL.  
 - PLACE AND COMPACT GRAVEL TO 98 PERCENT OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY.  
 - REPLACE REMOVED CURB AND GUTTER  
 - PLACE 75 MM OF ASPHALT TO SEAL THE PAVEMENT.



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 RM SIGNATURE: *[Signature]*  
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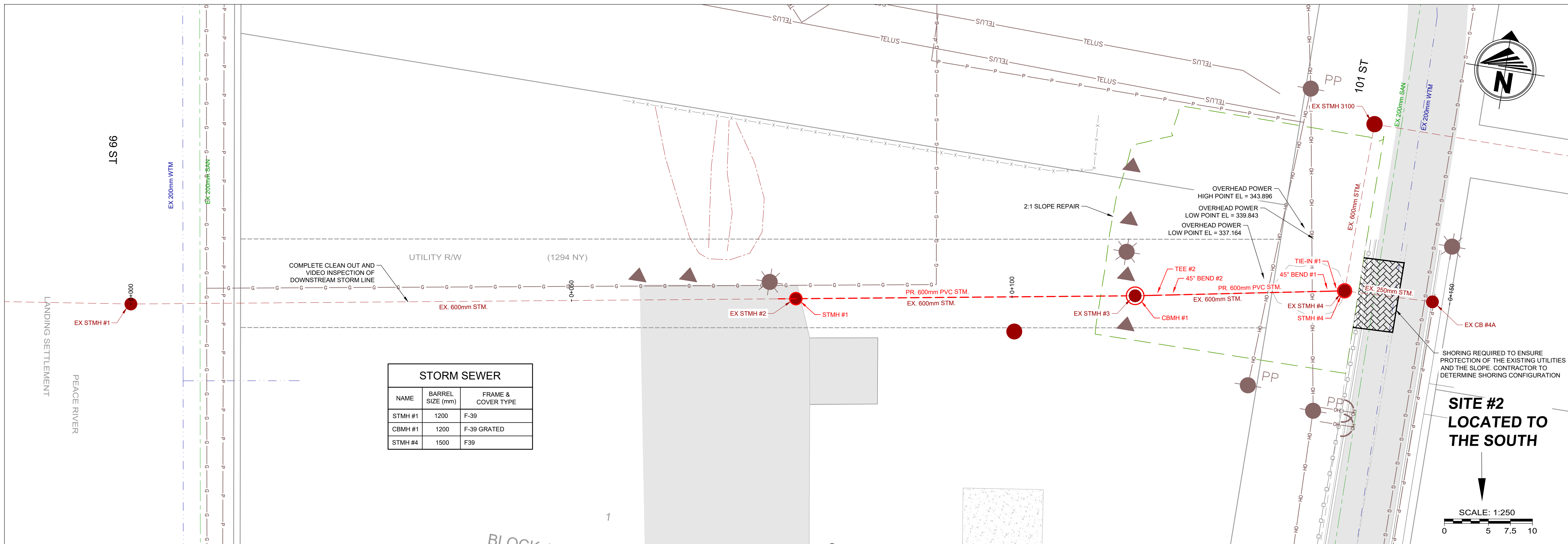
TECHNOLOGIST / TECHNICIAN: T. Beer / M. Lazaruk  
 DESIGNER: B. Major, P. Eng.  
 REVIEWED BY: K. Gramlick, P. Eng.  
 RESPONSIBLE ENGINEER: K. Gramlick, P. Eng.  
 DATE: July 2023  
 SCALE: 1:200

PROJECT NO. 20GEME6067

PROJECT NAME  
**TOWN OF PEACE RIVER  
 101 STREET STORM SEWER**

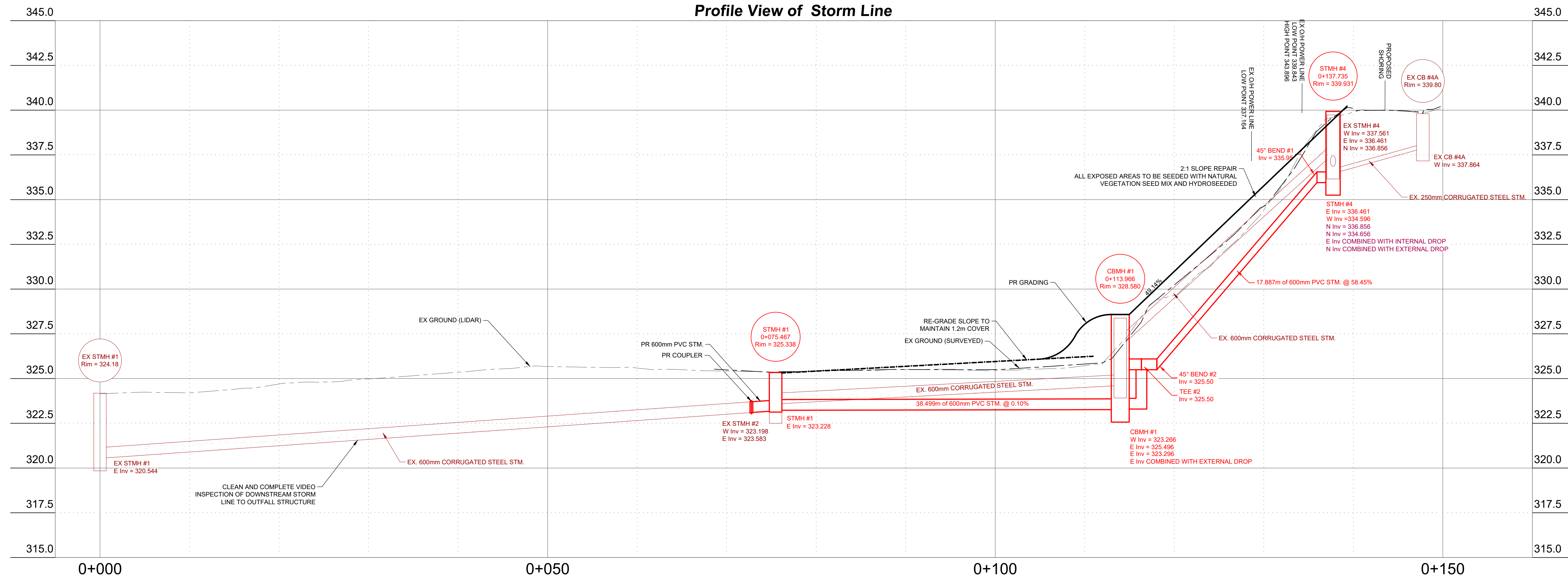
DRAWING DESCRIPTION  
**WASHOUT REPAIR**

DRAWING NO. **SR-01**



STORM SEWER		
NAME	BARREL SIZE (mm)	FRAME & COVER TYPE
STMH #1	1200	F-39
CBMH #1	1200	F-39 GRATED
STMH #4	1500	F39

Profile View of Storm Line



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RM SIGNATURE: [Signature]  
RM APEGA ID #: 81974  
DATE: August 29, 2023  
PERMIT NUMBER: P243  
The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

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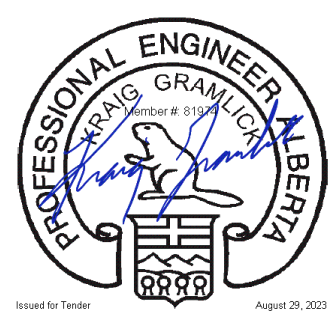
TECHNOLOGIST / TECHNICIAN: T. Beer / M. Lazaruk  
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DATE: July 2023  
SCALE: 1:250 (H) 1:125 (V)

PROJECT NO. 20GEME6067

PROJECT NAME  
**TOWN OF PEACE RIVER  
101 STREET STORM SEWER**

DRAWING DESCRIPTION  
**STORM LINE  
PLAN AND PROFILE**

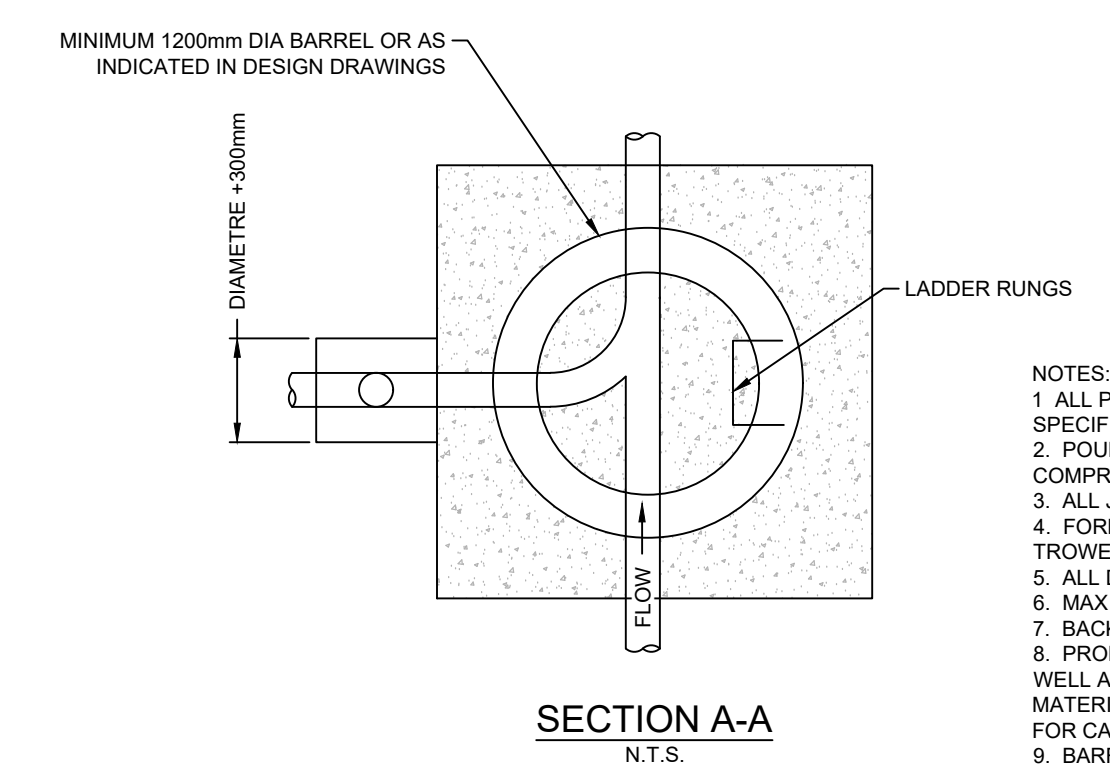
DRAWING NO. PP-01



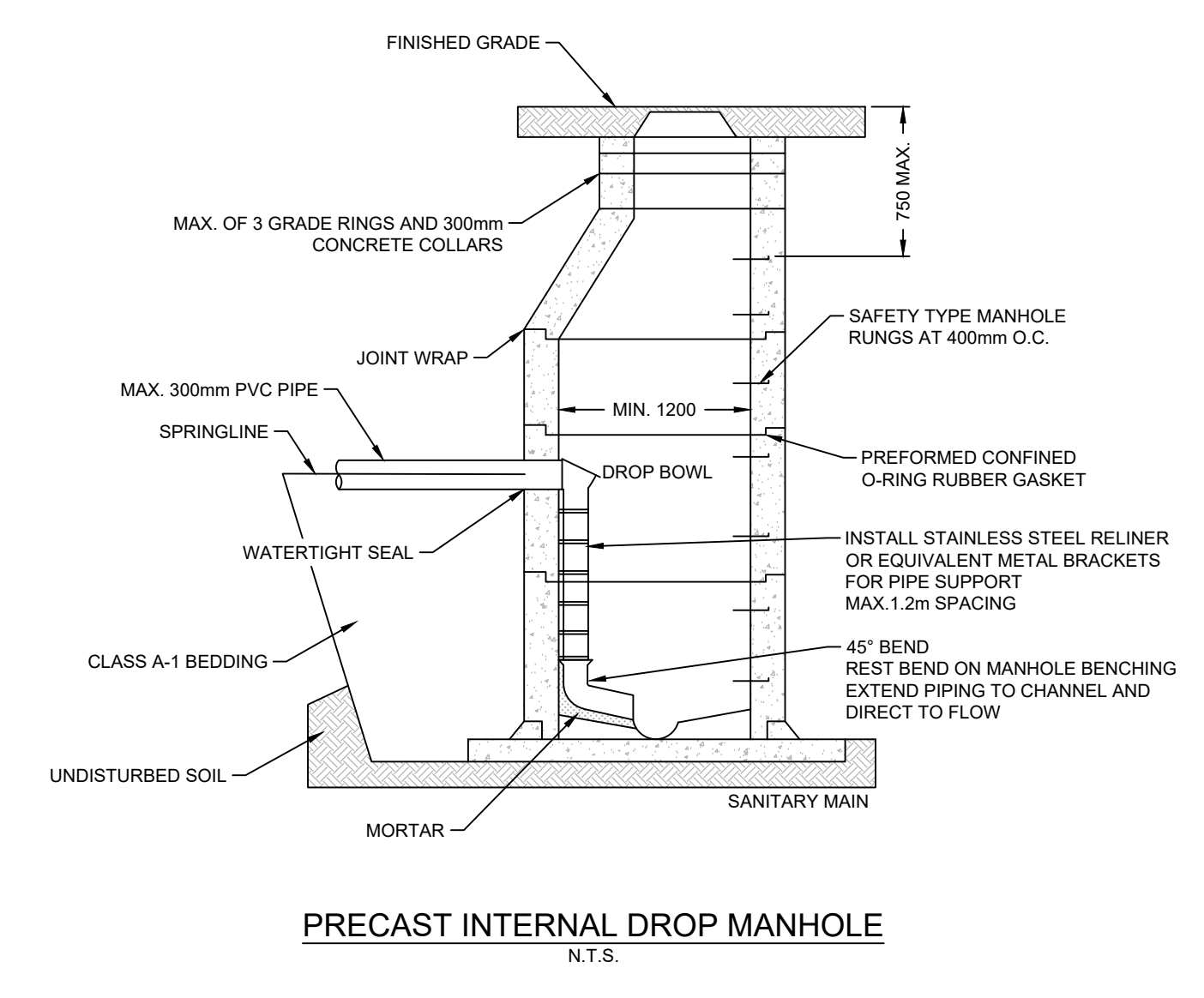
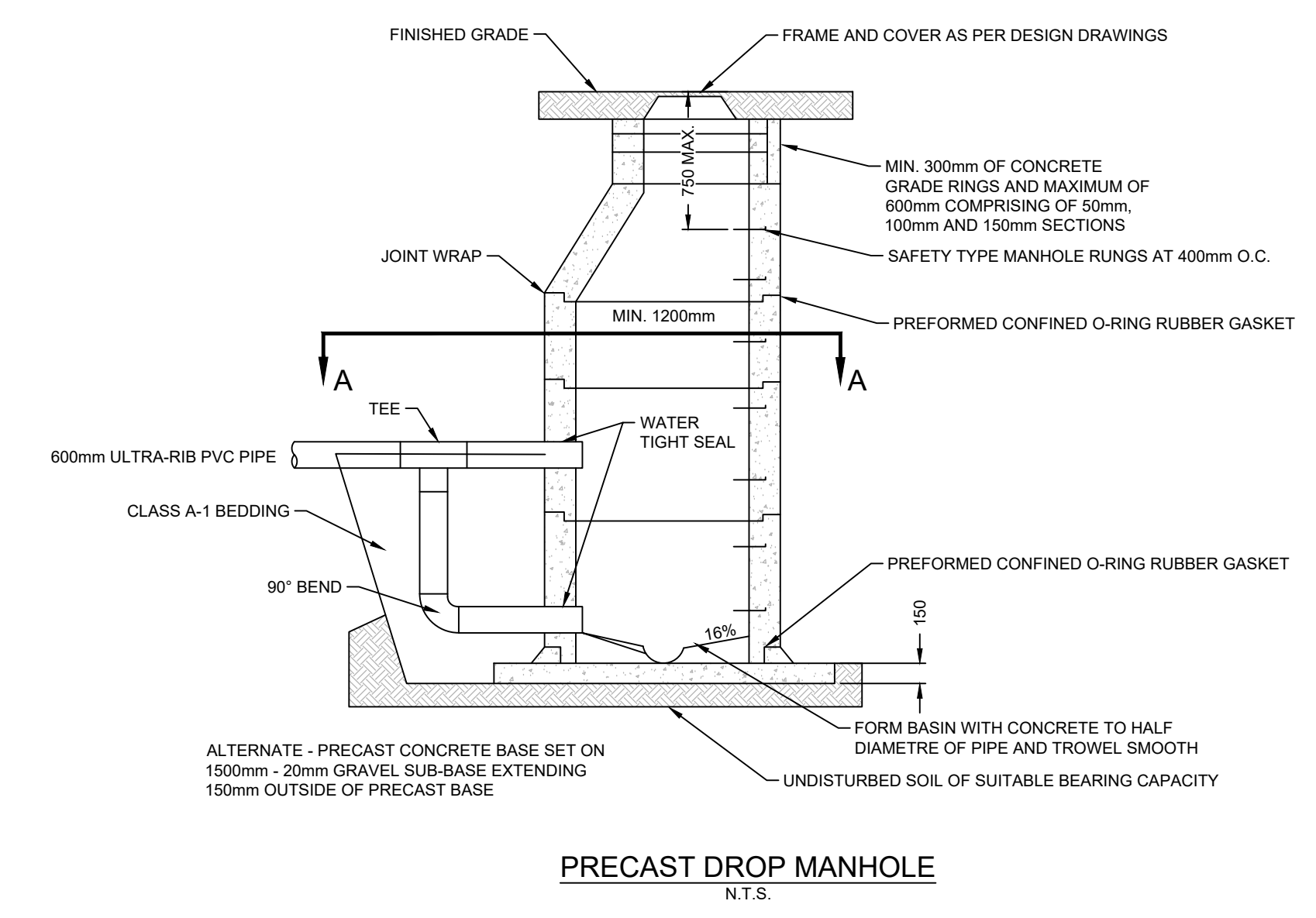
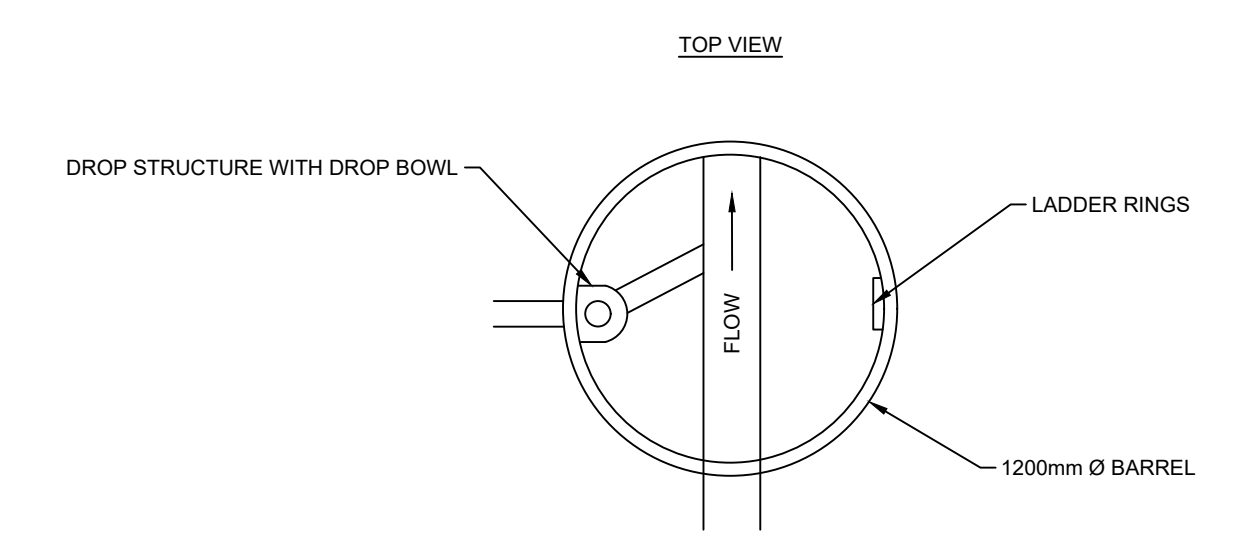
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- NOTES:
1. ALL PRECAST MANHOLES MUST CONFORM TO A.S.T.M. SPECIFICATIONS C478.
  2. POURED IN PLACE CONCRETE SHALL HAVE 28 DAYS COMPRESSIVE STRENGTH OF 25 MPa.
  3. ALL JOINTS MORTARED INSIDE AND OUT.
  4. FORM FLOW THROUGH IN PARTIALLY SET CONCRETE AND TROWEL SMOOTH.
  5. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.
  6. MAX DISTANCE FROM RIM TO TOP RUNG IS 800mm.
  7. BACKFILL MANHOLE WITH SELECT NATIVE MATERIAL.
  8. PROPORTIONING AND PRODUCING QUALITY CONCRETE AS WELL AS ACCEPTANCE TESTS FOR THE CONSTITUENT MATERIALS ARE SPECIFIED IN CSA STANDARDS A23.1 AND A23.4 FOR CAST-IN-PLACE AND PRECAST CONCRETE RESPECTIVELY.
  9. BARREL JOINTS TO BE GROUTED.



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 RESPONSIBLE ENGINEER: K. Gramlick, P. Eng.  
 DATE: July 2023  
 SCALE: N.T.S.

PROJECT NO. 20GEME6067

PROJECT NAME  
**TOWN OF PEACE RIVER  
 101 STREET STORM SEWER**

DRAWING DESCRIPTION  
**DETAILS**

DRAWING NO. **DT-01**