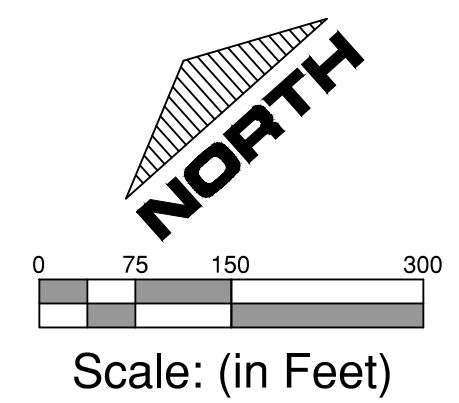
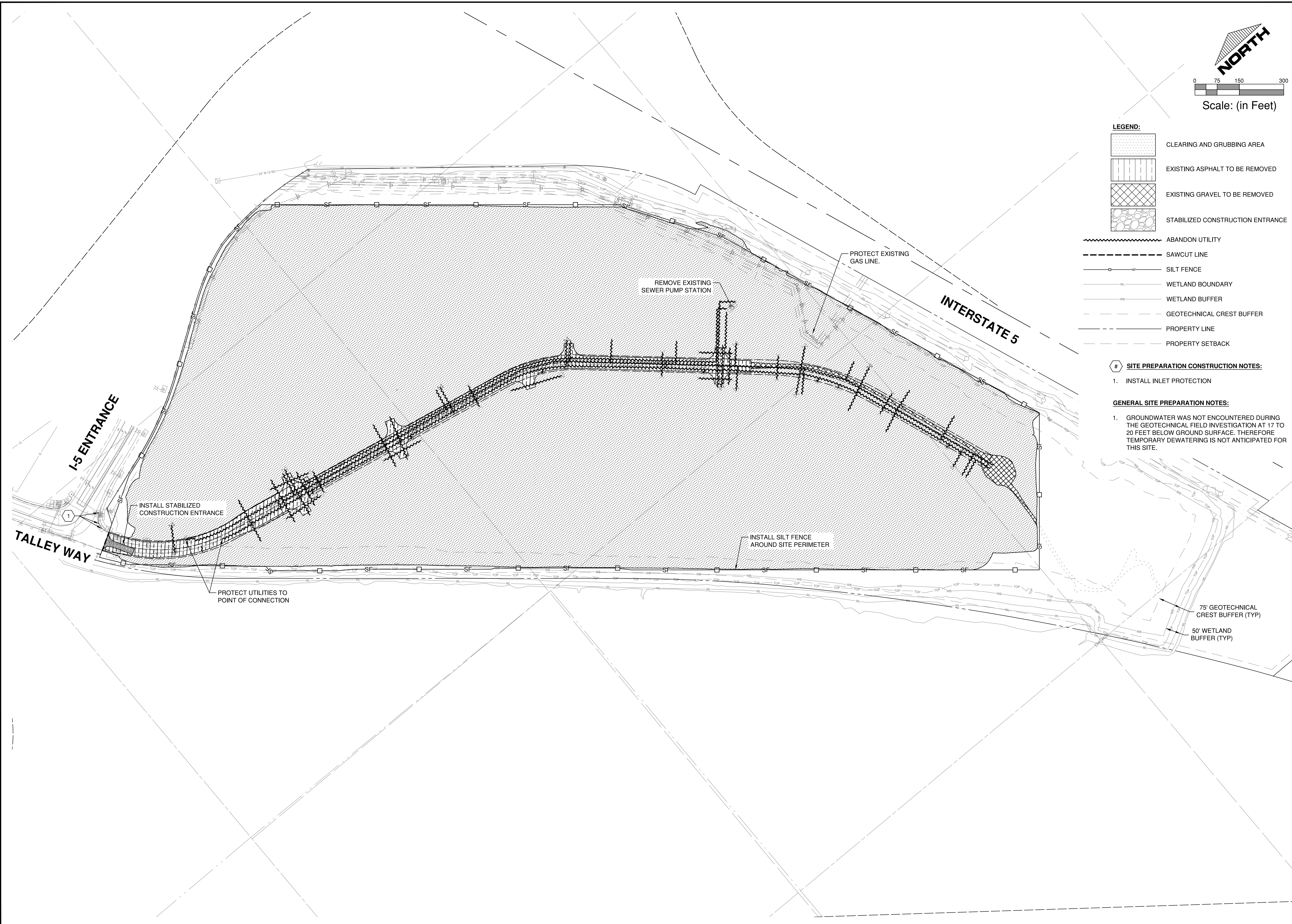






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 PROFILE: GIBBS & OLSON STANDARD — DWG TO PDF PLOT: GIBBS & OLSON STANDARD MONOCHROME.CTB, PAPER SIZE: 34.00 X 22.00 INCHES



- LEGEND:**
- CLEARING AND GRUBBING AREA
  - EXISTING ASPHALT TO BE REMOVED
  - EXISTING GRAVEL TO BE REMOVED
  - STABILIZED CONSTRUCTION ENTRANCE
  - ABANDON UTILITY
  - SAWCUT LINE
  - SILT FENCE
  - WETLAND BOUNDARY
  - WETLAND BUFFER
  - GEOTECHNICAL CREST BUFFER
  - PROPERTY LINE
  - PROPERTY SETBACK

- # SITE PREPARATION CONSTRUCTION NOTES:**
- INSTALL INLET PROTECTION
- GENERAL SITE PREPARATION NOTES:**
- GROUNDWATER WAS NOT ENCOUNTERED DURING THE GEOTECHNICAL FIELD INVESTIGATION AT 17 TO 20 FEET BELOW GROUND SURFACE. THEREFORE TEMPORARY DEWATERING IS NOT ANTICIPATED FOR THIS SITE.



Trammell Crow Company

**Mid I-5 Industrial Park  
 Trammell Crow Portland Development, Inc.  
 Site Preparation Plan**

Datum: NAD83 / NAVD 88  
 Survey Book: 0000  
 Project Milestone: **Prelim**  
 Date: **7/20/2022**



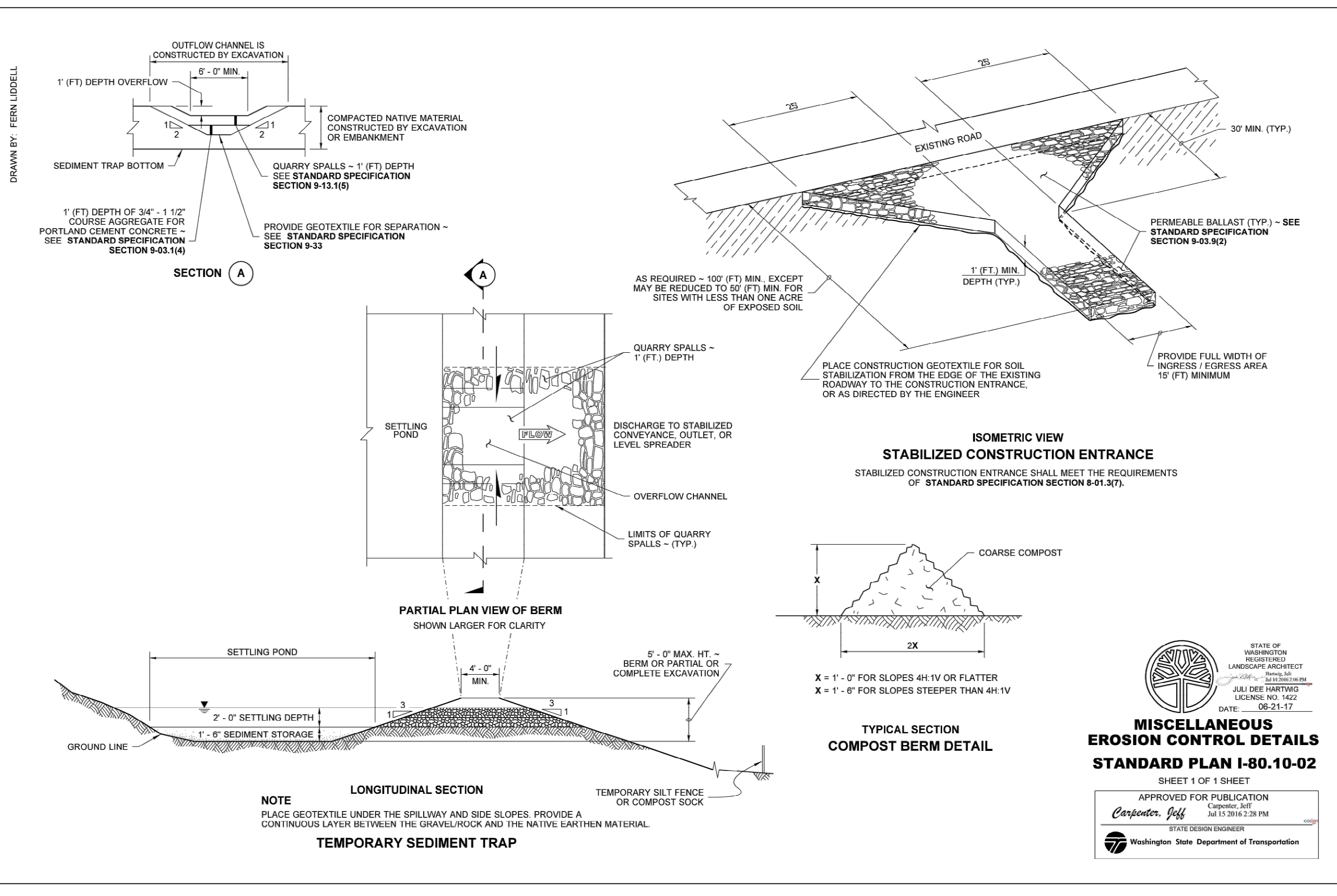
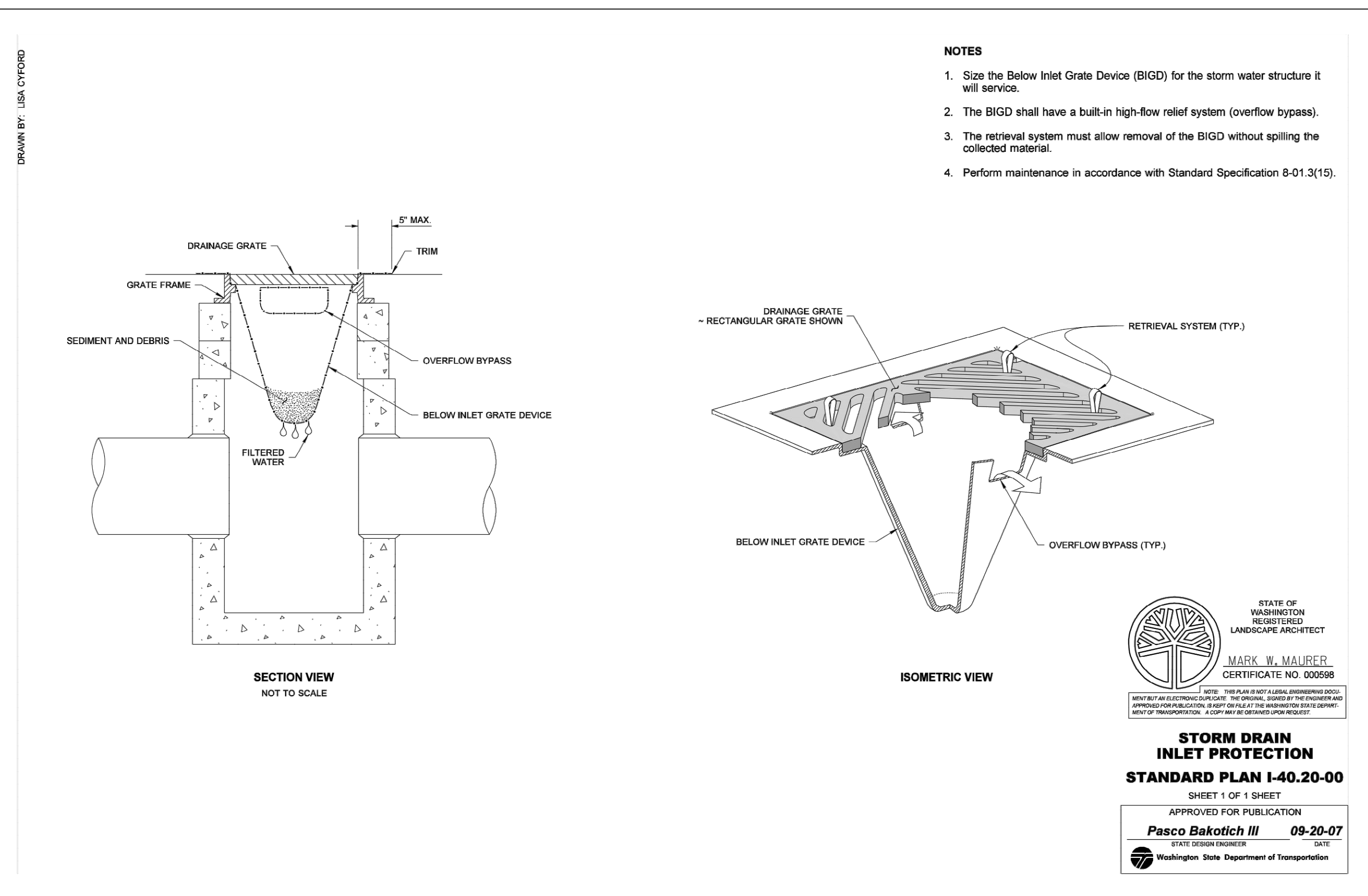
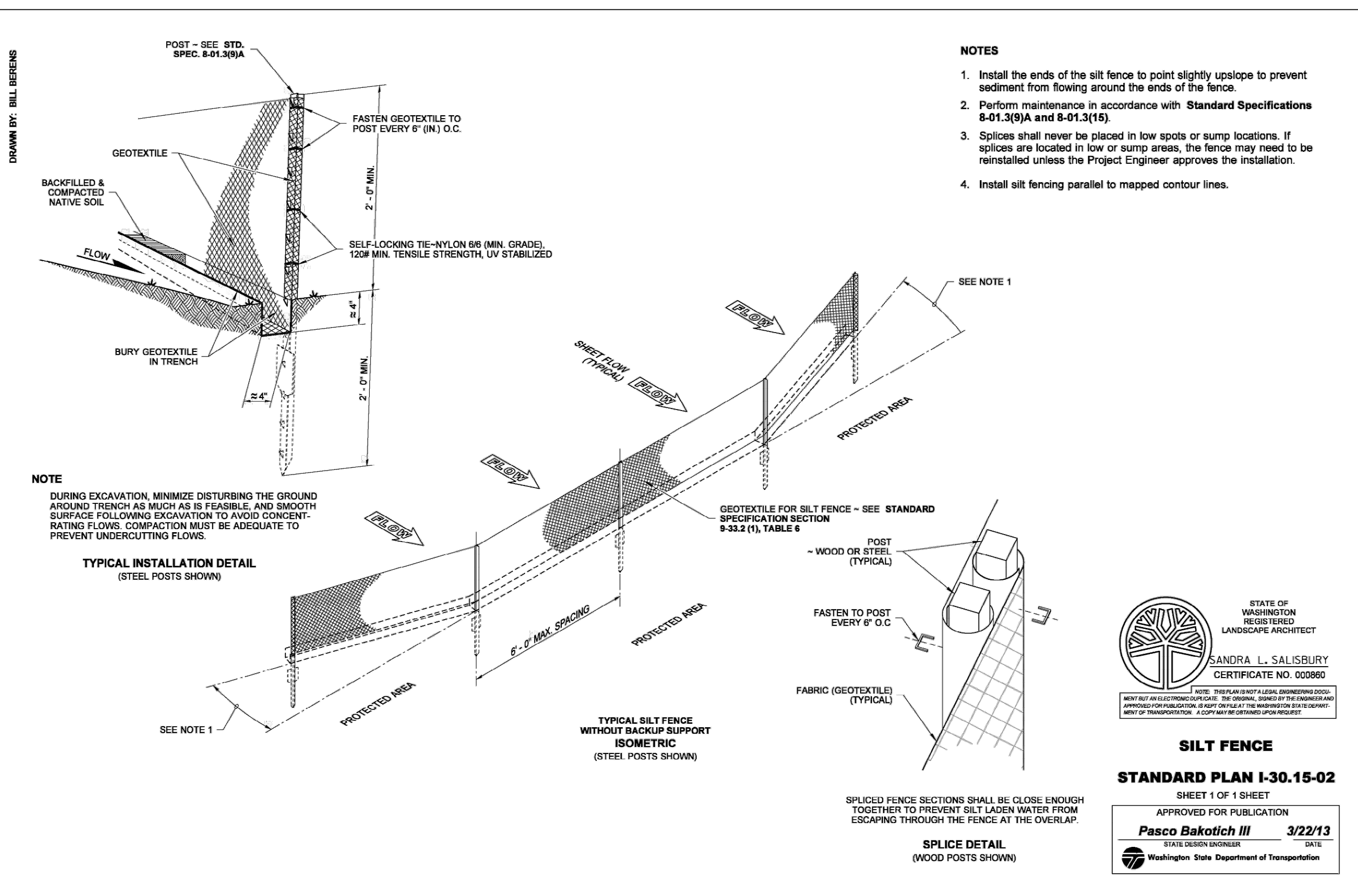
Designed by: **GWM**  
 Checked by: **CJG**  
 Approved by: **CLR**

Project Number:  
**0788.0247**

Drawing Number:  
**C1.0**

Sheet Number:  
**3 of 17**

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Trammell Crow Company

Mid I-5 Industrial Park  
Trammell Crow Portland Development, Inc.  
Site Preparation Details

Datum: NAD83 / NAVD 88  
Survey Book: 0000  
Project Milestone: Prelim  
Date: 7/20/2022

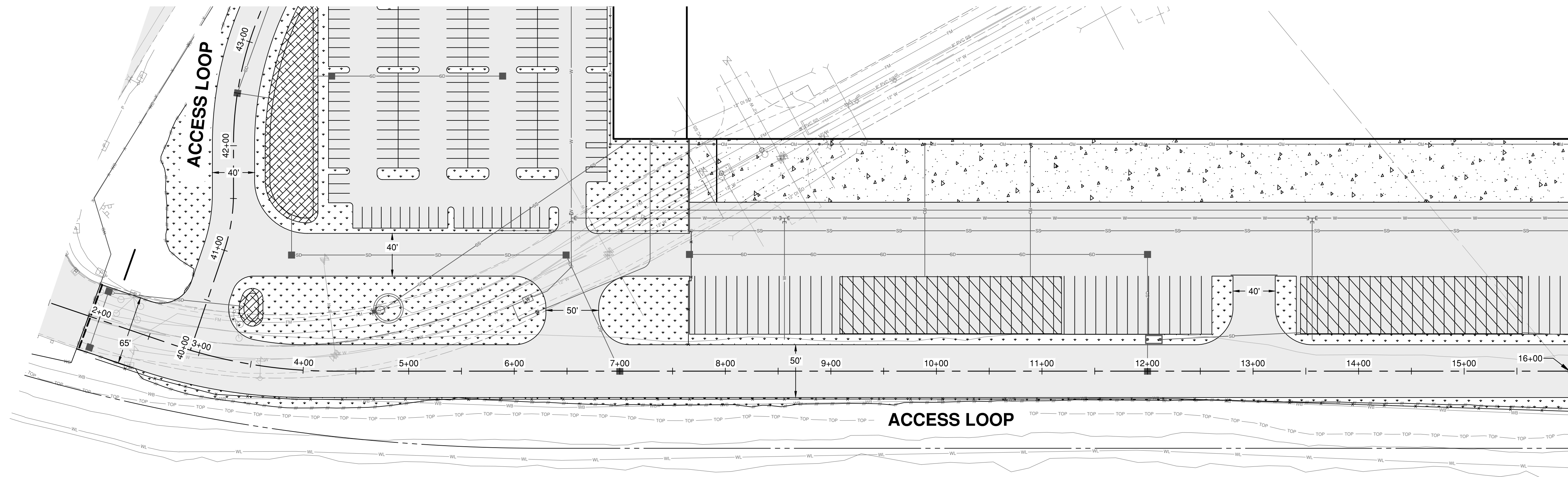
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Checked by: CJG  
Approved by: CLR  
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Drawing Number: C1.1  
Sheet Number: 4 of 17







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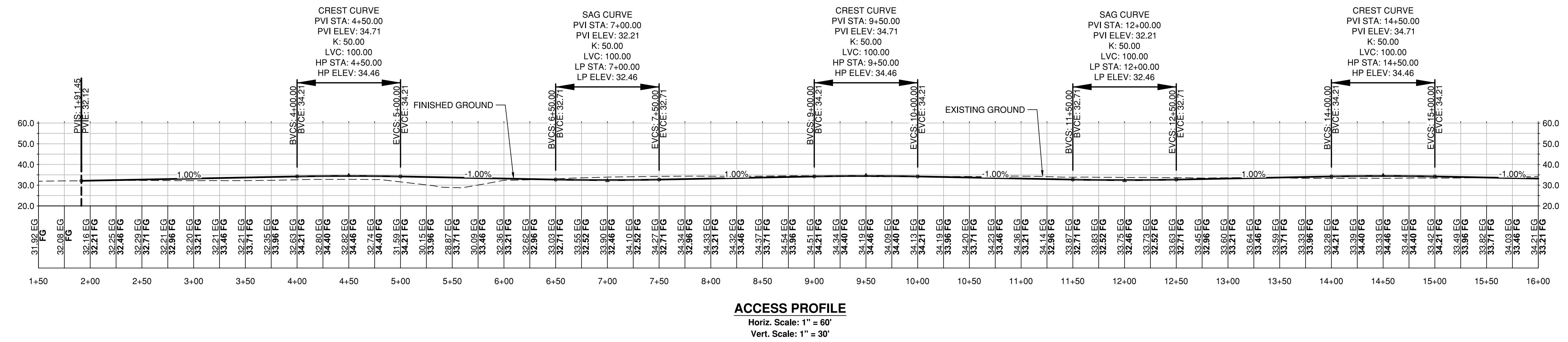
MATCH LINE STA 16+00, SEE DWG C2.4

**LEGEND:**

- ASPHALT PAVEMENT
- CEMENT CONCRETE
- CONCRETE SIDEWALK
- LANDSCAPING
- BIORETENTION FACILITY

**GENERAL SITE NOTES:**

- WITHIN ALL AREAS THAT HAVE BEEN SUBJECT TO CLEARING AND GRADING, ALL GRASS AND LANDSCAPED AREAS SHALL HAVE A MINIMUM 8-INCH SETTLED TOPSOIL LAYER PRIOR TO SEEDING AND PLANTING THAT MEETS THE CRITERIA PER BMP T5.13 IN THE STORMWATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON, VOL V.

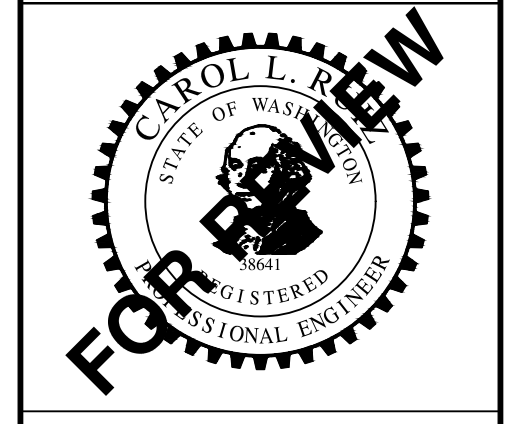


Trammell Crow Company

**Mid I-5 Industrial Park  
 Trammell Crow Portland Development, Inc.**

**Plan & Profile  
 Access Loop Sta 1+50 to Sta 16+00**

Datum: NAD83 / NAVD 88  
 Survey Book: 0000  
 Project Milestone: **Prelim**  
 Date: 7/20/2022



Designed by: GWM  
 Checked by: CJG  
 Approved by: CLR

Project Number:  
**0788.0247**

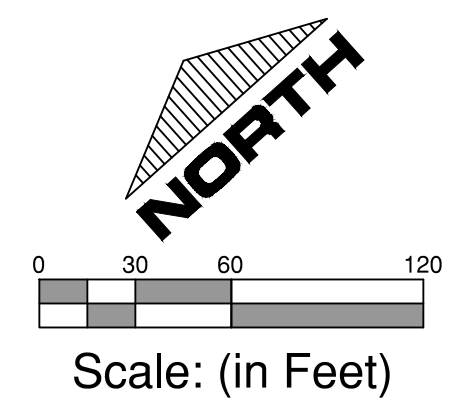
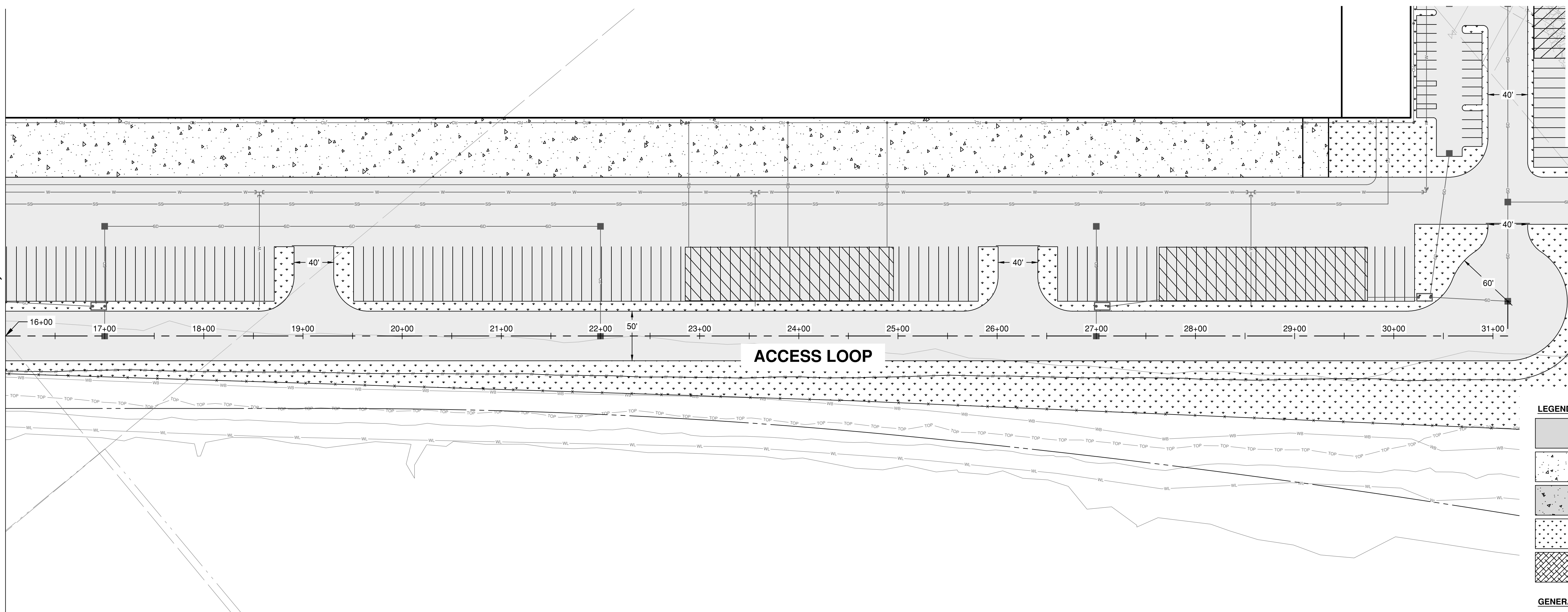
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**C2.3**

Sheet Number:  
**8 of 17**



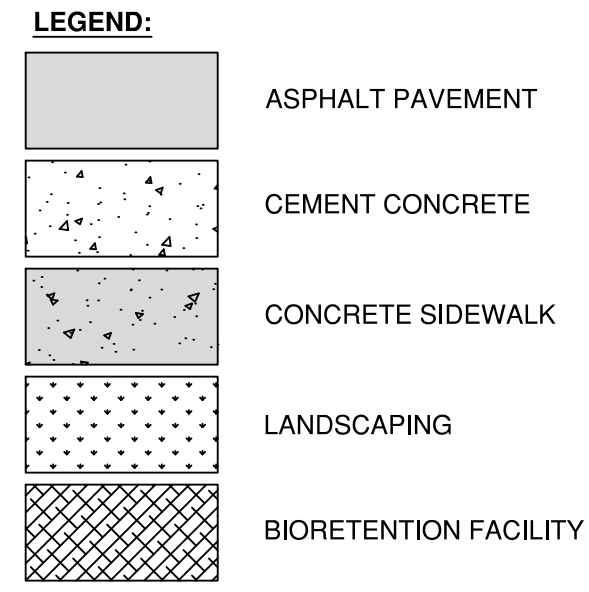
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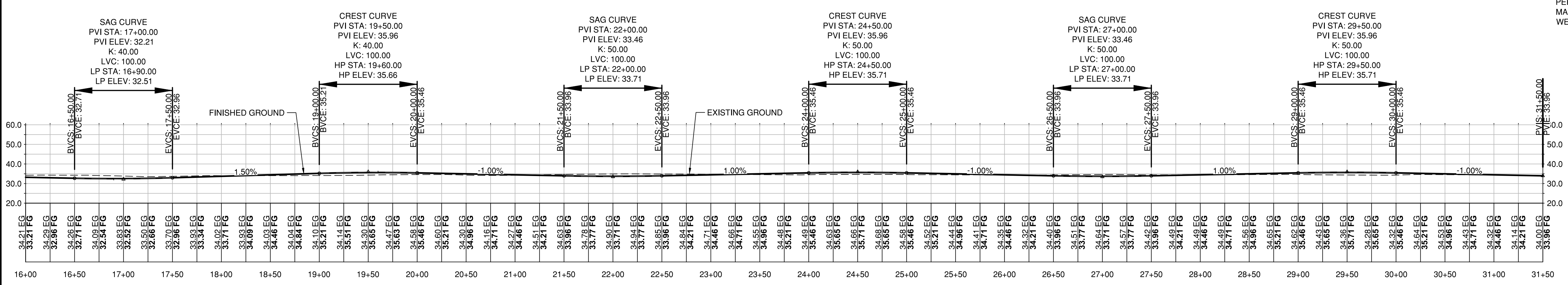
Trammell Crow Company

**ACCESS LOOP**



**GENERAL SITE NOTES:**

- WITHIN ALL AREAS THAT HAVE BEEN SUBJECT TO CLEARING AND GRADING, ALL GRASS AND LANDSCAPED AREAS SHALL HAVE A MINIMUM 8-INCH SETTLED TOPSOIL LAYER PRIOR TO SEEDING AND PLANTING THAT MEETS THE CRITERIA PER BMP T5.13 IN THE STORMWATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON, VOL. V.

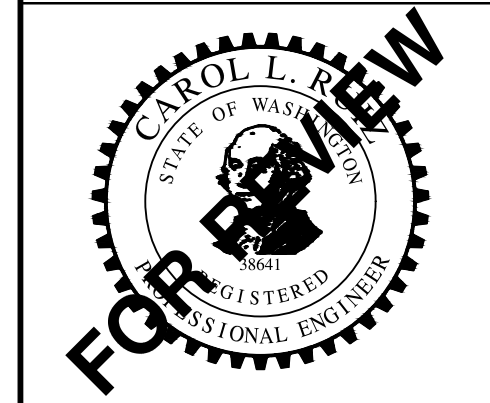


**ACCESS PROFILE**  
 Horiz. Scale: 1" = 60'  
 Vert. Scale: 1" = 30'

**Mid I-5 Industrial Park  
 Trammell Crow Portland Development, Inc.**

**Plan & Profile  
 Access Loop Sta 16+00 to Sta 31+50**

Datum: NAD83 / NAVD 88  
 Survey Book: 0000  
 Project Milestone: **Prelim**  
 Date: **7/20/2022**



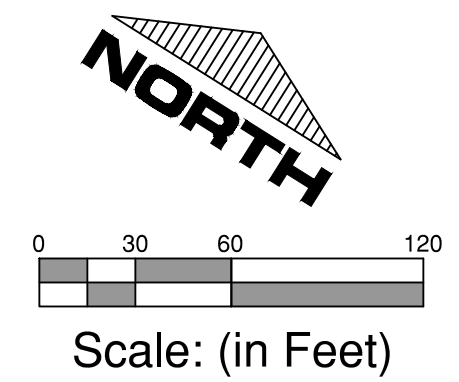
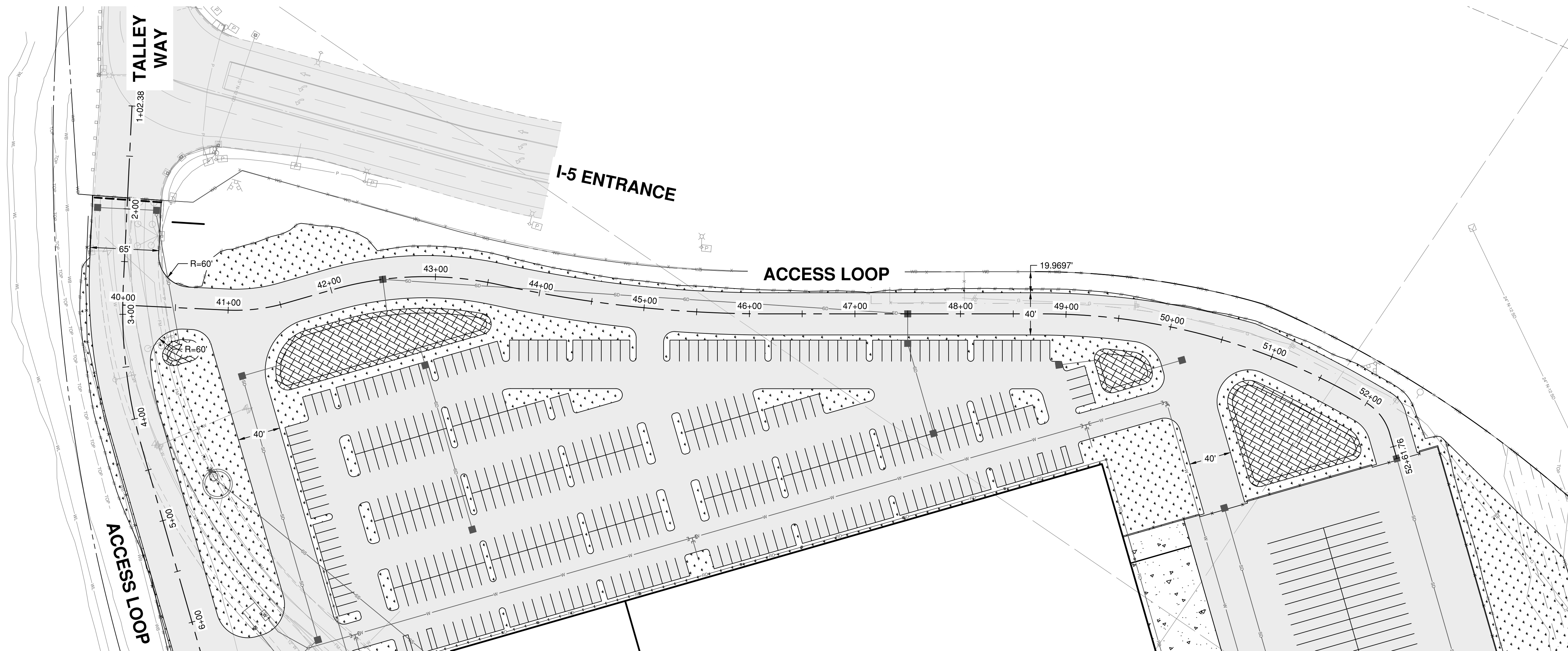
Designed by: **GWM**  
 Checked by: **CJG**  
 Approved by: **CLR**

Project Number:  
**0788.0247**

Drawing Number:  
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Sheet Number:  
**9 of 17**

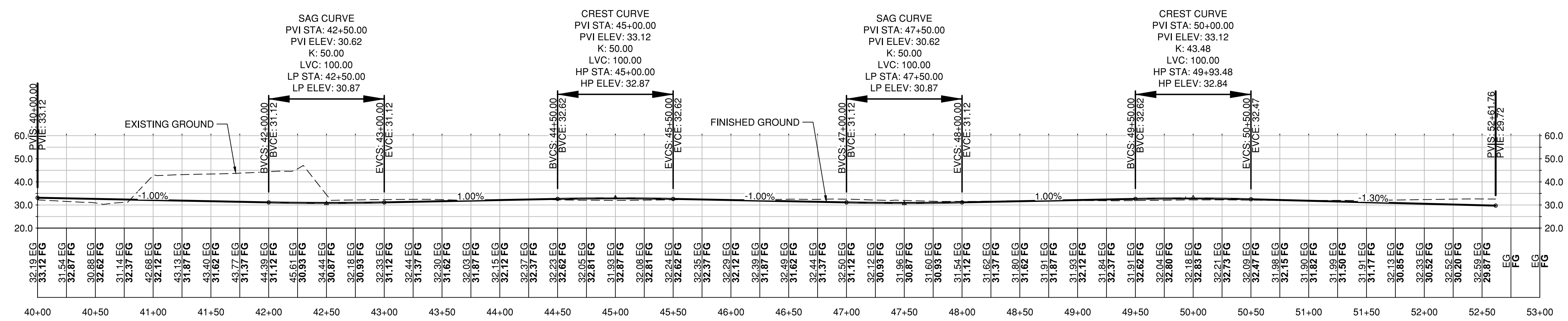
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- LEGEND:**
- ASPHALT PAVEMENT
  - CEMENT CONCRETE
  - CONCRETE SIDEWALK
  - LANDSCAPING
  - BIORETENTION FACILITY

**GENERAL SITE NOTES:**

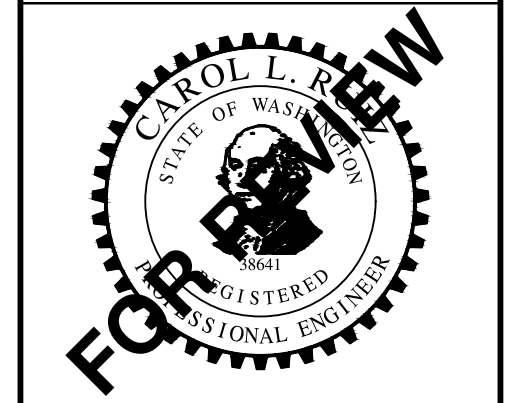
- WITHIN ALL AREAS THAT HAVE BEEN SUBJECT TO CLEARING AND GRADING, ALL GRASS AND LANDSCAPED AREAS SHALL HAVE A MINIMUM 6-INCH SETTLED TOPSOIL LAYER PRIOR TO SEEDING AND PLANTING THAT MEETS THE CRITERIA PER BMP T5.13 IN THE STORMWATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON, VOL. V.



Trammell Crow Company

**Mid I-5 Industrial Park**  
**Trammell Crow Portland Development, Inc.**  
 Plan & Profile  
 Access Loop Sta 40+00 to Sta 52+62

Datum: NAD83 / NAVD 88  
 Survey Book: 0000  
 Project Milestone: **Prelim**  
 Date: 7/20/2022



Designed by: GWM  
 Checked by: CJG  
 Approved by: CLR

Project Number:  
**0788.0247**

Drawing Number:  
**C2.5**

Sheet Number:  
**10 of 17**

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Trammell Crow Company

**Mid I-5 Industrial Park  
Trammell Crow Portland Development, Inc.  
Site & Roadway Details**

Datum: **NAD83 / NAVD 88**  
Survey Book: **0000**

Project Milestone: **Prelim**  
Date: **7/20/2022**

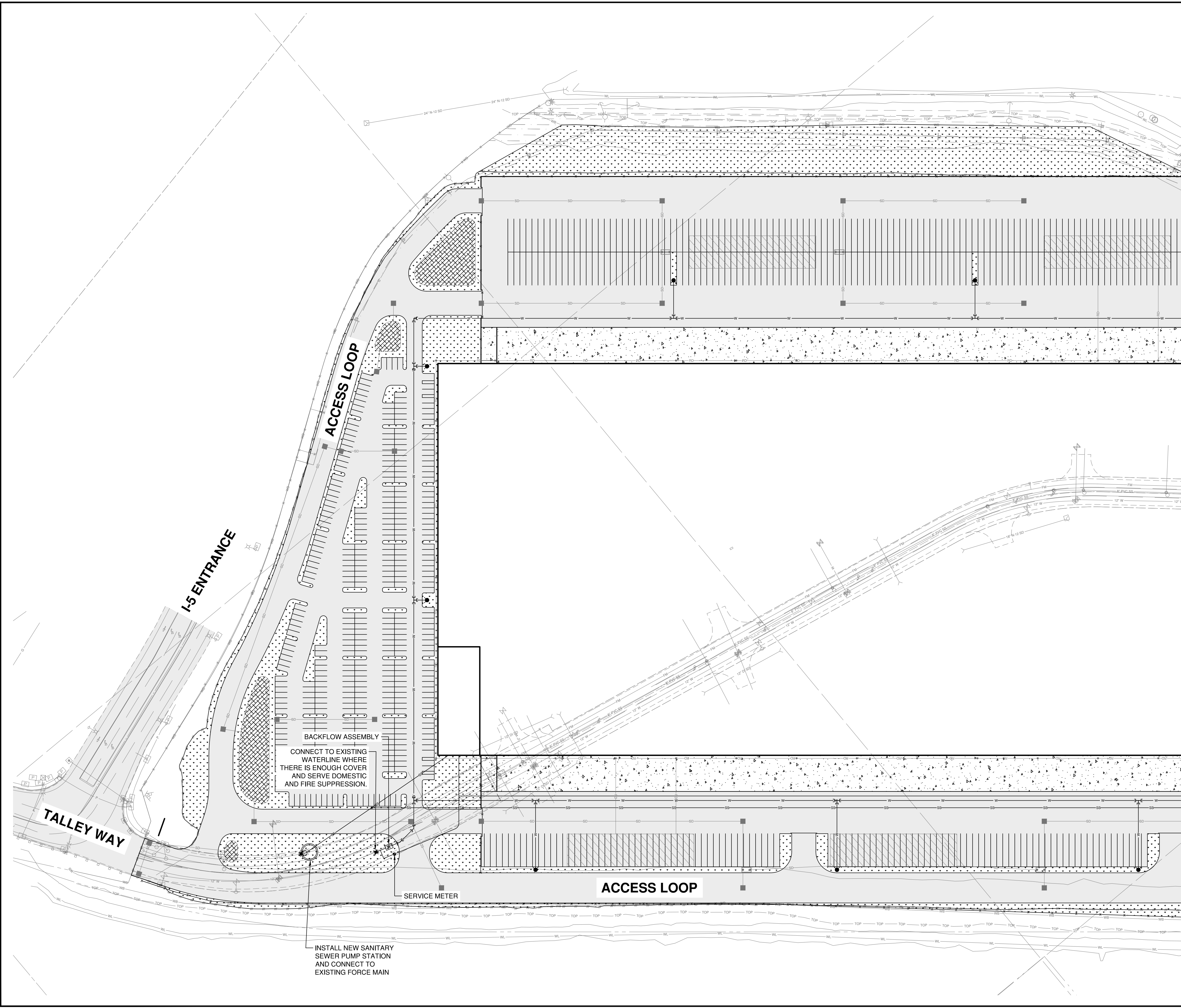
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Checked by: **CJG**  
Approved by: **CLR**

Project Number:  
**0788.0247**

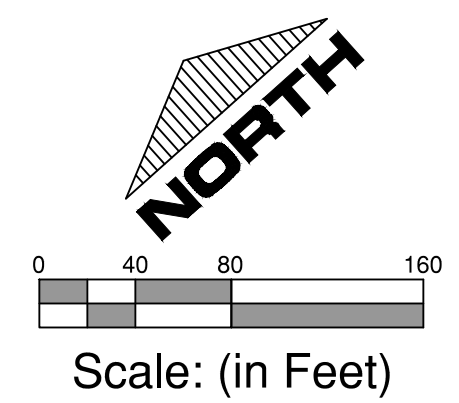
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Sheet Number:  
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MATCH LINE, SEE DWG C3.1



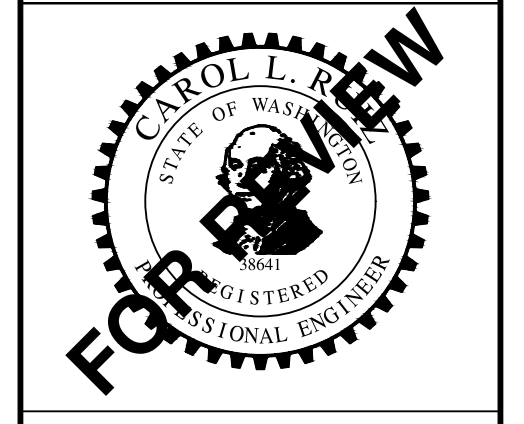
- LEGEND:**
- W — WATERLINE
  - WS — WATER SERVICE LINE
  - SS — SANITARY SEWER LINE
  - FIRE HYDRANT
  - Y FIRE DEPARTMENT CONNECTION (FDC)
  - WATER METER
  - REDUCED PRESSURE BACKFLOW PREVENTER (RPBA)
  - DOUBLE CHECK VALVE ASSEMBLY (DCVA)
  - DOUBLE CHECK DETECTOR ASSEMBLY (DCDA)
  - ⊥ MJ x MJ FITTING
  - ⊥ FL x FL FITTING
  - ⊥ FL x MJ GATE VALVE
  - ⊥ MJ x MJ GATE VALVE
  - ⊥ FL x FL CHECK VALVE
  - ⊥ FL x MJ REDUCER
  - ⊥ FL x MJ ADAPTER
  - ⊥ THRUST BLOCK
  - SANITARY SEWER PUMP STATION
  - SANITARY SEWER CLEANOUT



Trammell Crow Company

**Mid I-5 Industrial Park  
 Trammell Crow Portland Development, Inc.  
 Utility Plan**

Datum: NAD83 / NAVD 88  
 Survey Book: 0000  
 Project Milestone: **Prelim**  
 Date: 7/20/2022



Designed by: GWM  
 Checked by: CJG  
 Approved by: CLR

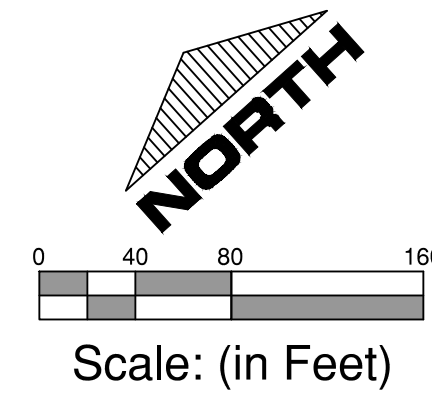
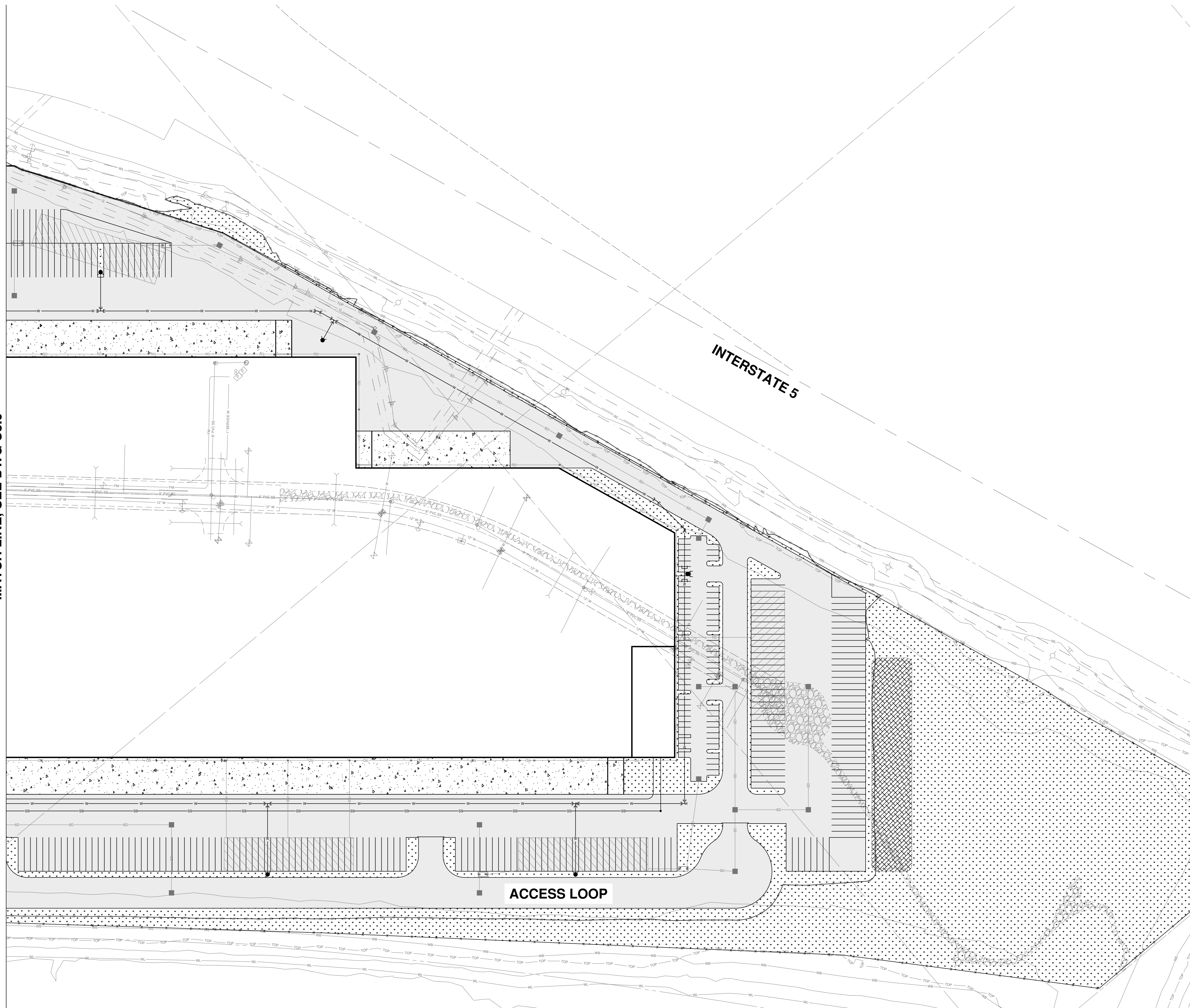
Project Number:  
**0788.0247**

Drawing Number:  
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Sheet Number:  
**12 of 17**

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MATCH LINE, SEE DWG C3.0



LEGEND:

- W — WATERLINE
- - - WS - - - WATER SERVICE LINE
- - - SS - - - SANITARY SEWER LINE
- FIRE HYDRANT
- Y FIRE DEPARTMENT CONNECTION (FDC)
- WATER METER
- ▣ REDUCED PRESSURE BACKFLOW PREVENTER (RPBA)
- ▣ X DOUBLE CHECK VALVE ASSEMBLY (DCVA)
- ▣ W DOUBLE CHECK DETECTOR ASSEMBLY (DCDA)
- ⊥ MJ x MJ FITTING
- ⊥ FL x FL FITTING
- ⊥ X FL x MJ GATE VALVE
- ⊥ X MJ x MJ GATE VALVE
- ⊥ Z FL x FL CHECK VALVE
- ⊥ R FL x MJ REDUCER
- ⊥ A FL x MJ ADAPTER
- ⊥ T THRUST BLOCK
- ⊙ SANITARY SEWER PUMP STATION
- SANITARY SEWER CLEANOUT

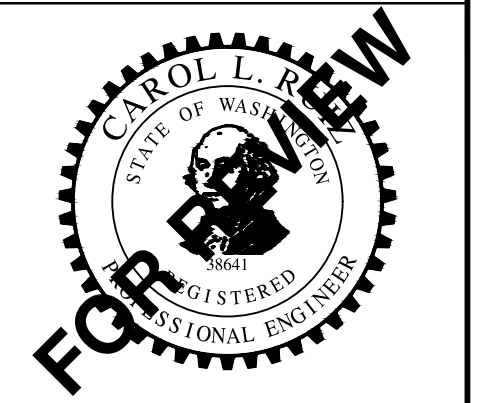


Trammell Crow Company

Mid I-5 Industrial Park  
 Trammell Crow Portland Development, Inc.  
 Utility Plan

Datum: NAD83 / NAVD 88  
 Survey Book: 0000

Project Milestone: Prelim  
 Date: 7/20/2022



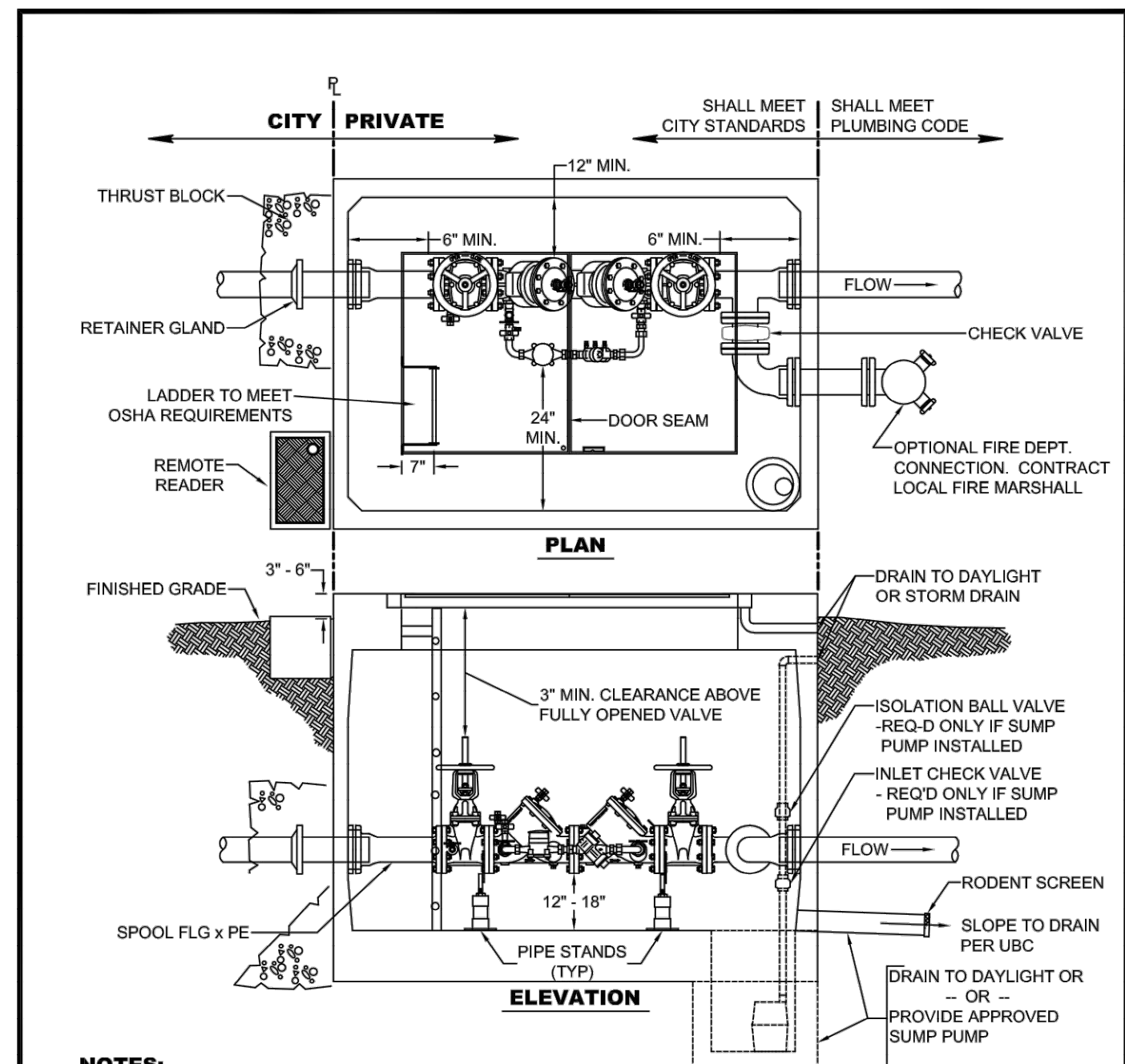
Designed by: GWM  
 Checked by: CJG  
 Approved by: CLR

Project Number:  
**0788.0247**

Drawing Number:  
**C3.1**


Sheet Number:  
**13 of 17**

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**NOTES:**

1. REFER TO CITY STANDARD DETAIL W-430 FOR INSTALLATION REQUIREMENTS THAT APPLY TO ALL BACKFLOW PREVENTION ASSEMBLIES.
2. DCDV GATE VALVES SHALL HAVE SUPERVISED TAMPER SWITCHES IF REQUIRED BY FIRE MARSHALL.
3. HATCH DRAINS TO BE PLUMBED TO DAYLIGHT OR STORM DRAIN AS DIRECTED BY THE CITY'S C.C.S. OR ENGINEER.
4. KNOCKOUTS NOT ALLOWED IN VAULT.
5. LINK SEALS TO BE USED FOR ALL VAULT PENETRATIONS.
6. PIPE STANDS TO BE STANCON S76 OR EQUIVALENT FLANGE STYLE STANDS, EITHER GALVANIZED OR MADE OF STAINLESS STEEL.
7. VAULT TO BE EQUIPPED WITH A LEAK PROOF, GASKETED, DOUBLE RAISE, ALUMINUM, AASHTO H20 RATED, HYDRAULIC ASSIST LOCKING HATCH, MIN. 36" x 60", LOCKING OPEN 90°.
8. VAULT SHALL BE PRECAST CONCRETE, SIZED TO MEET THE CLEARANCE REQUIREMENTS SHOWN IN THE DETAIL.
9. VAULT SHALL GRAVITY DRAIN TO DAYLIGHT OR STORM DRAIN, IF THIS IS NOT POSSIBLE, A 1/2 HP MINIMUM SUMP PUMP SHALL BE INSTALLED IN THE SUMP PIT OF THE VAULT AND SHALL DISCHARGE TO DAYLIGHT OR A STORM DRAIN. SAID PUMP SHALL AUTOMATICALLY PROTECT VAULT FROM FLOODING AT ALL TIMES.
10. WATER METER SHALL INCLUDE A TOUCH READ PIT MODULE PLACED IN BROOKS 37 T BOX ON STREET SIDE.

	<b>DOUBLE CHECK DETECTOR ASSEMBLY, LARGE, BELOW GROUND</b>	
	STANDARD PLAN: <b>W - 360 - K</b>	CITY ENGINEER APPROVAL: Longview: Kelso: <b>S.Z.</b>
DATE: <b>FEB. 2008</b>		



Trammell Crow Company

**Mid I-5 Industrial Park**  
**Trammell Crow Portland Development, Inc.**  
 Utility Details

Datum: NAD83 / NAVD 88  
 Survey Book: 0000

Project Milestone: **Prelim**  
 Date: **7/20/2022**

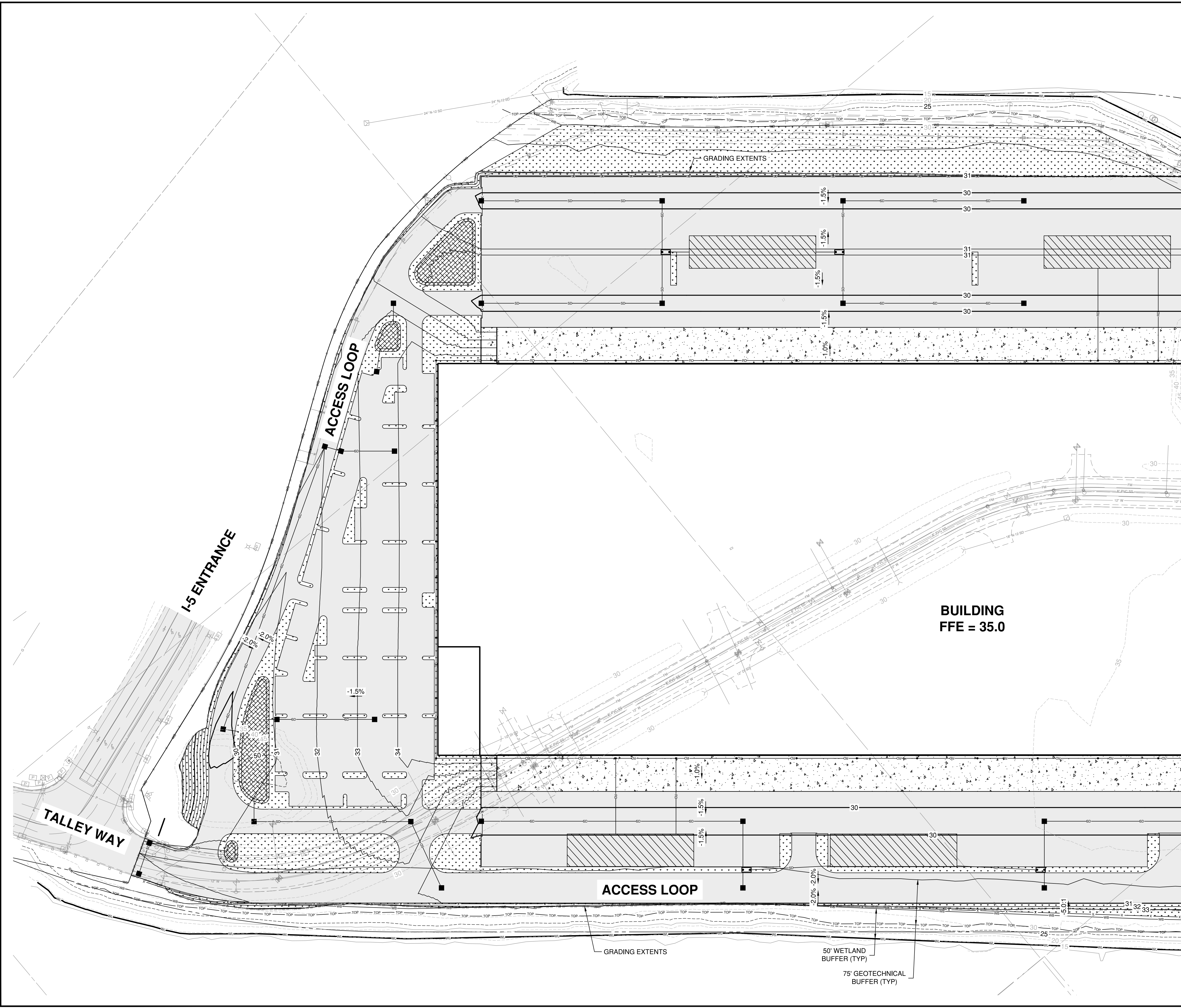
Designed by: **GWM**  
 Checked by: **CJG**  
 Approved by: **CLR**

Project Number:  
**0788.0247**

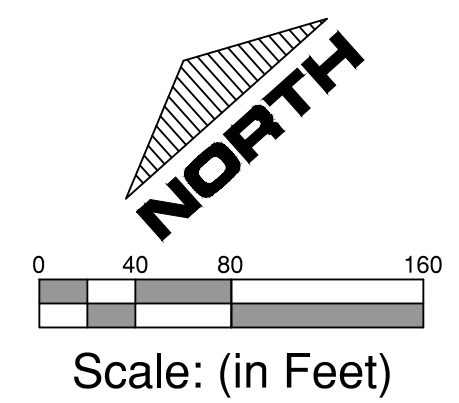
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**14 of 17**

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MATCH LINE, SEE DWG C4.1



- LEGEND:**
- STORM DRAIN LINE
  - ROOF DRAIN LINE
  - STORM DRAIN CLEANOUT
  - STORM DRAIN CATCH BASIN
  - STORM DRAIN MECHANICAL TREATMENT
  - UNDERGROUND INFILTRATION FACILITY
  - BIORETENTION FACILITY
  - LANDSCAPING
  - EXISTING CONTOUR
  - PROPOSED CONTOUR
  - GRADING EXTENTS LINE

- GENERAL NOTES:**
1. EXISTING GROUND CONTOURS ARE SHOWN AT 5' AND 25' INTERVALS.



Trammell Crow Company

**Mid I-5 Industrial Park**  
**Trammell Crow Portland Development, Inc.**  
**Grading & Storm Drainage Plan**

Datum: NAD83 / NAVD 88  
 Survey Book: 0000  
 Project Milestone: **Prelim**  
 Date: 7/20/2022

Designed by: **GWM**  
 Checked by: **CJG**  
 Approved by: **CLR**

Project Number:  
**0788.0247**

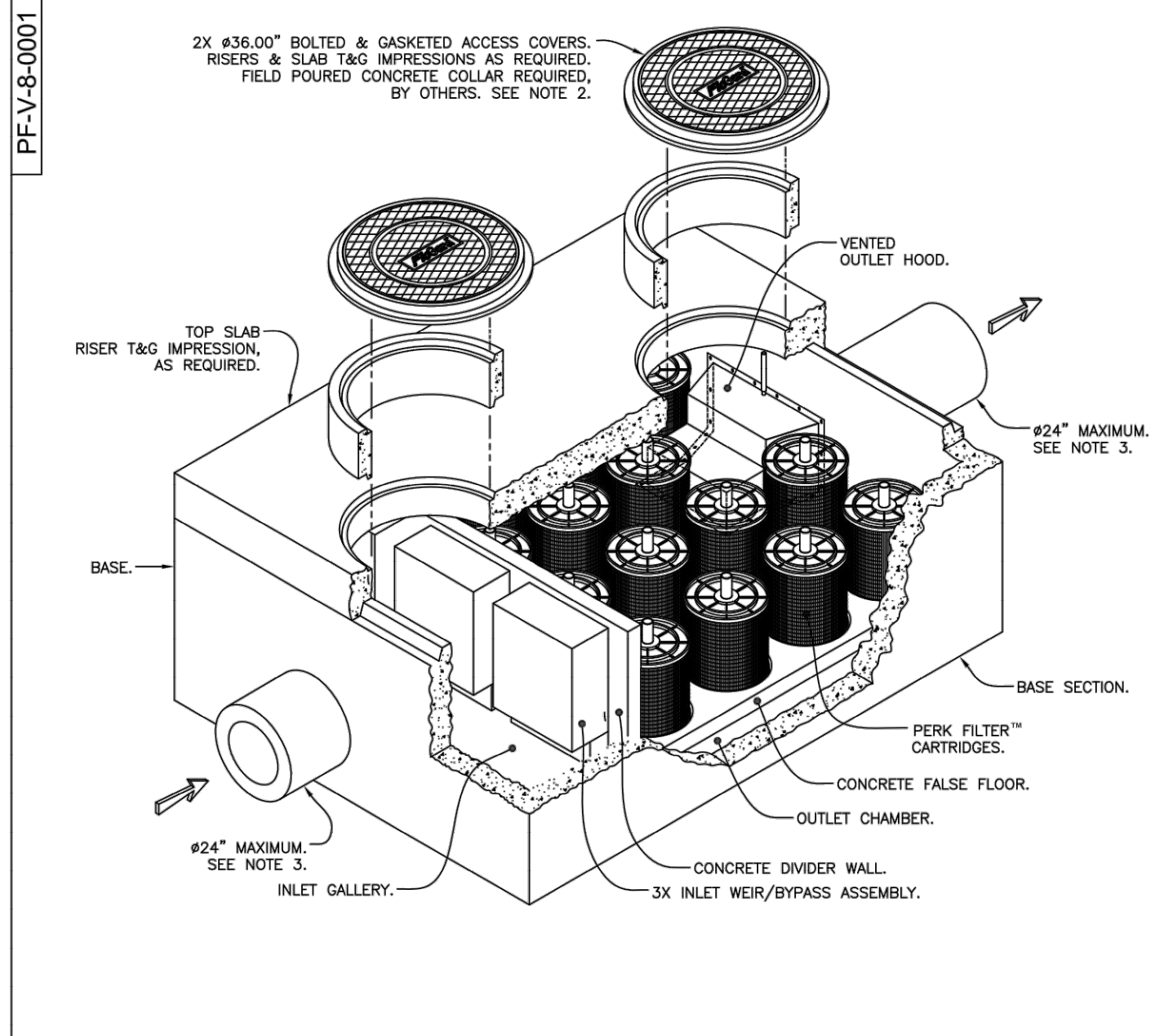
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Sheet Number:  
**15 of 17**





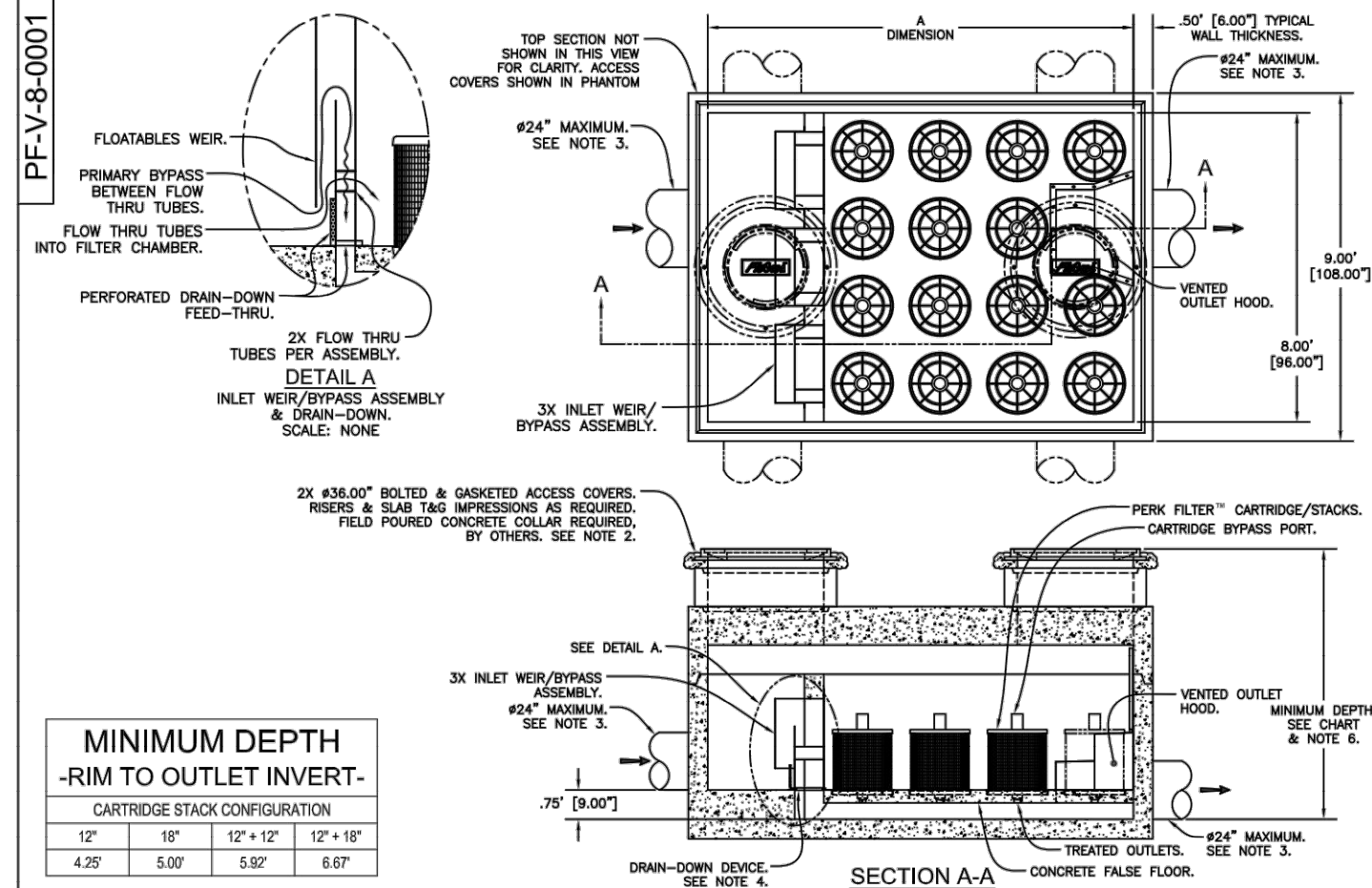
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- Notes:
1. Precast concrete structure shall be manufactured in accordance with ASTM Designation C857 and C858.
  2. Filter system shall be supplied with traffic rated (H20) bolted & gasketed Ø36" circular access covers with risers as required. Shallow applications may require configurations with (H20) bolted & gasketed square/rectangular access hatches. Field poured concrete collars required, by others. See Note 2.
  3. Inlet & outlet pipe(s) (Ø 24" maximum) may enter device on all three sides of the inlet & outlet chambers respectively.
  4. Inlet chamber shall be supplied with a drain-down device designed to remove standing water between storm events.
  5. For depths less than specified minimums contact Oldcastle® Stormwater Solutions for engineering assistance.

**PerkFilter™**  
8' Wide Concrete Vault  
Sixteen to Thirty Four Cartridges / Stacks

**Oldcastle Infrastructure™**  
A CRH COMPANY  
DRAWING NO. PF-V-8-0001  
DATE: JUN 6/17/20  
SHEET 1 OF 2



**MINIMUM DEPTH - RIM TO OUTLET INVERT -**

Cartridge Stack Configuration	12" x 12"	12" x 12" x 12"	12" x 12" x 18"
4.25'	5.00'	5.82'	6.67'

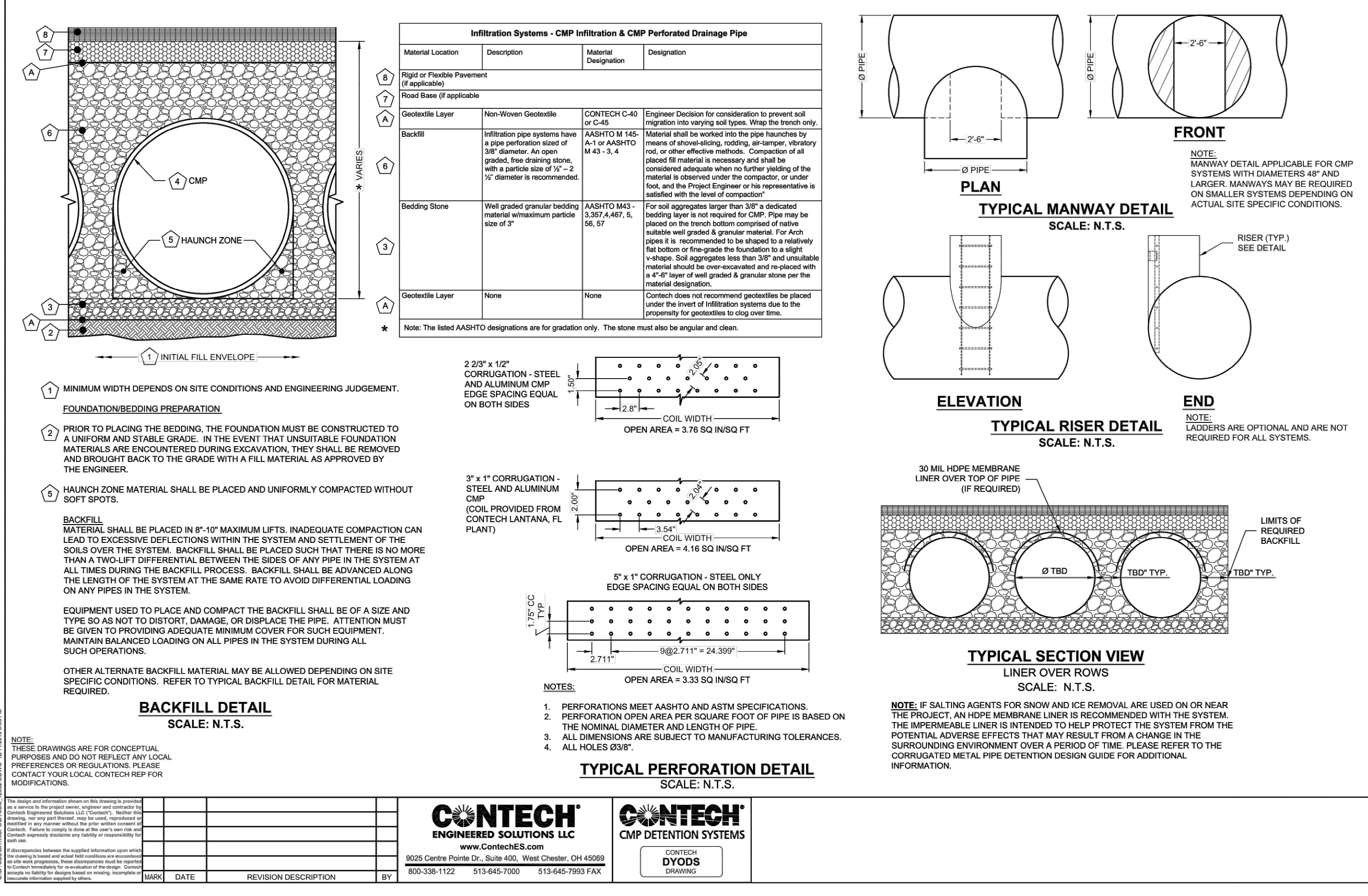
**8' VAULT TREATMENT FLOW RATES, TOTAL FLOW CAPACITIES & MAXIMUM HEAD LOSS**

Cartridge Stack Quantity	A Dimension Length (D-1T)	Cartridge Stack Configuration							
		12" x 12"	12" x 12" x 12"	12" x 12" x 18"	12" x 18"				
14	12	108 / 0.37	8.8	252 / 0.36	13.0	336 / 0.75	14.9	420 / 0.94	19.9
15	12	180 / 0.43	8.8	270 / 0.60	13.1	360 / 0.80	15.0	450 / 1.00	19.9
16	12	192 / 0.43	8.8	288 / 0.64	13.1	384 / 0.86	15.0	480 / 1.07	20.0
17	12	204 / 0.45	8.9	306 / 0.66	13.2	408 / 0.91	15.1	510 / 1.14	20.1
18	12	216 / 0.48	8.9	324 / 0.72	13.2	432 / 0.98	15.1	540 / 1.20	20.1
19	16	228 / 0.51	8.9	342 / 0.78	13.2	456 / 1.02	15.2	570 / 1.27	20.2
20	16	240 / 0.53	8.9	360 / 0.80	13.3	480 / 1.07	15.2	600 / 1.34	20.3
21	16	252 / 0.56	9.0	378 / 0.84	13.3	504 / 1.12	15.3	630 / 1.40	20.3
22	16	264 / 0.59	9.0	396 / 0.88	13.4	528 / 1.18	15.3	660 / 1.47	20.4
23	16	276 / 0.61	9.0	414 / 0.92	13.4	552 / 1.23	15.4	690 / 1.54	20.5
24	16	288 / 0.64	9.0	432 / 0.96	13.4	576 / 1.28	15.4	720 / 1.60	20.5
25	16	300 / 0.67	9.1	450 / 1.00	13.5	600 / 1.34	15.5	750 / 1.67	20.6
26	16	312 / 0.70	9.1	468 / 1.04	13.5	624 / 1.39	15.5	780 / 1.74	20.7
27	16	324 / 0.72	9.1	486 / 1.08	13.6	648 / 1.44	15.6	810 / 1.80	20.7
28	16	336 / 0.75	9.2	504 / 1.12	13.6	672 / 1.50	15.6	840 / 1.87	20.8
29	20	348 / 0.78	9.2	522 / 1.16	13.6	696 / 1.55	15.7	870 / 1.94	20.9
30	20	360 / 0.80	9.2	540 / 1.20	13.7	720 / 1.60	15.7	900 / 2.01	20.9
31	20	372 / 0.83	9.2	558 / 1.24	13.7	744 / 1.66	15.8	930 / 2.07	21.0
32	20	384 / 0.86	9.3	576 / 1.28	13.8	768 / 1.71	15.8	960 / 2.14	21.1
33	20	396 / 0.88	9.3	594 / 1.32	13.8	792 / 1.76	15.9	990 / 2.21	21.1
34	20	408 / 0.91	9.3	612 / 1.36	13.8	816 / 1.82	15.9	1020 / 2.27	21.2

MAXIMUM HEAD LOSS: 1.7 FT, 2.3 FT, 2.8 FT, 3.5 FT

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SHEET 2 OF 2



Trammell Crow Company

Mid I-5 Industrial Park  
Trammell Crow Portland Development, Inc.  
Grading & Storm Drainage Details

Datum: NAD83 / NAVD 88  
Survey Book: 0000  
Project Milestone: Prelim  
Date: 7/20/2022

Designed by: GWM  
Checked by: CJG  
Approved by: CLR

Project Number:  
**0788.0247**

Drawing Number:  
**C4.2**

Sheet Number:  
**17 of 17**