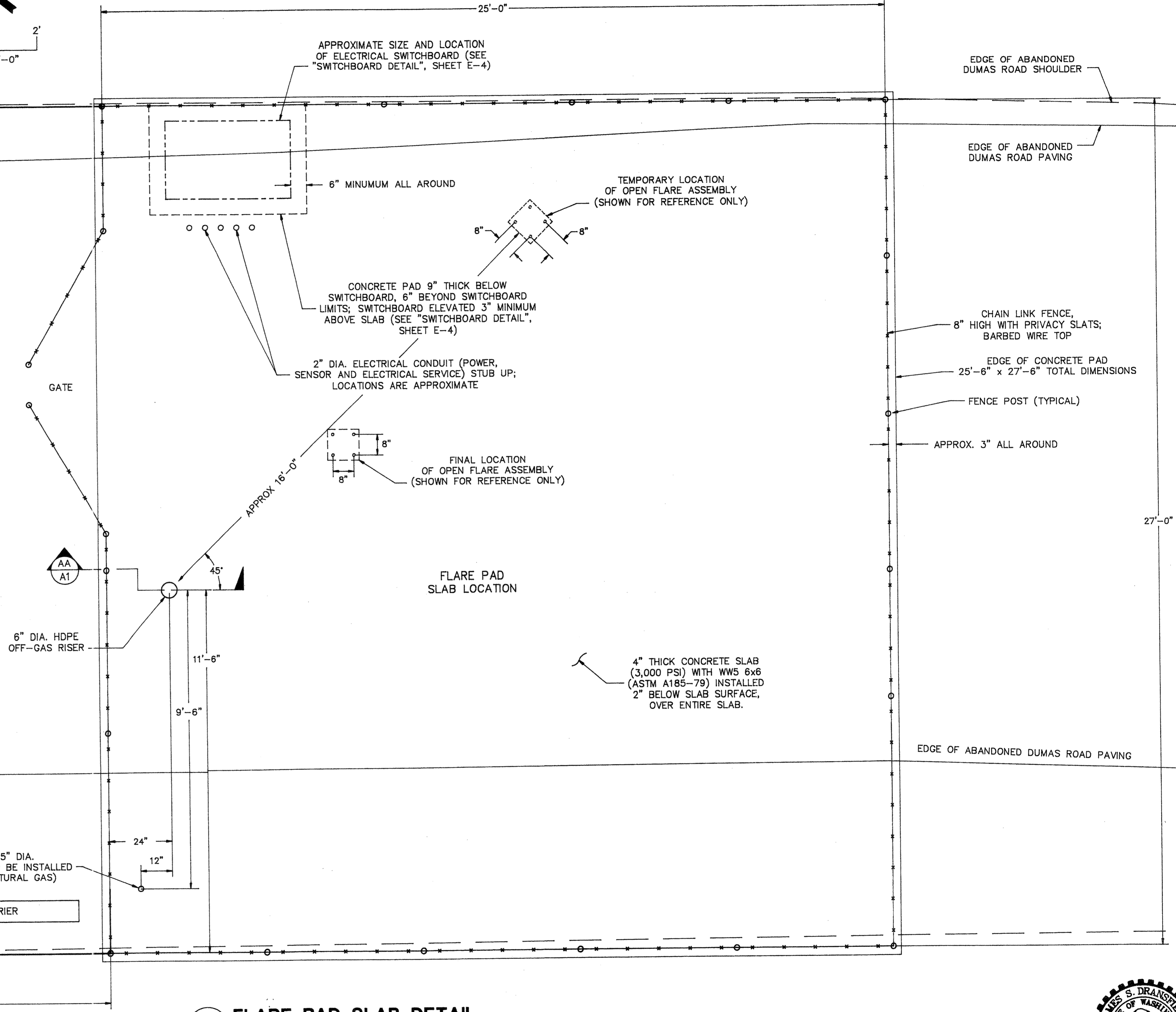
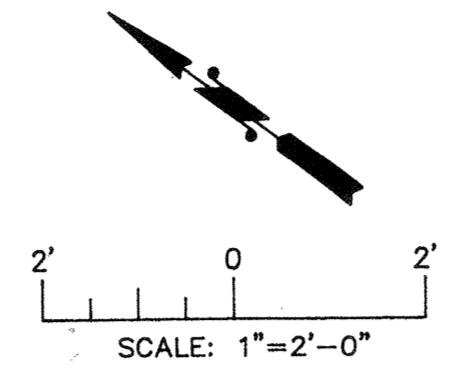


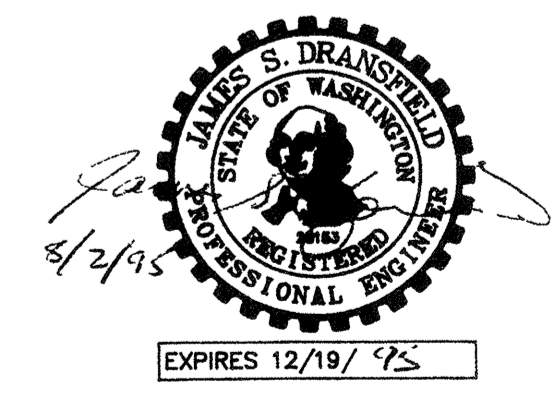
**AA  
A1** FLARE PAD SLAB SECTION  
SCALE: 1"=12"

- NOTES:
1. ALL PIPES ENTERING COMPOUND SHALL TERMINATE 2'-0" ABOVE FINAL SLAB GRADE. SPACING BETWEEN ALL PIPES SHALL BE A MINIMUM OF (2) PIPE DIAMETERS, OR AS DIRECTED BY THE ENGINEER.
  2. LABEL ALL PIPE CLEARLY WITH TERMINUS LOCATION.
  3. ALL PIPE RISERS SHALL BE PLUMB, AND ALIGN WITH THE OTHERS IN THE ROW.



**1  
A1** FLARE PAD SLAB DETAIL  
NOT TO SCALE

- NOTES:
1. FOR FLARE PAD EQUIPMENT LAYOUT, SEE DETAIL 1, SHEET M2 OF CONSTRUCTION PLANS.



AGRA EARTH & ENVIRONMENTAL, INC. DRAWING No. \PLAN-SET\11\07764-04\M2.DWG

PLAN CHECK	BY	DATE	REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.
			10	WASH.		1 OF 1
					DESIGNED BY: MARTIN FOX	DRAWN BY: MARTIN FOX
					DATE APPROVED:	FIELD BOOK(S):
		7/10/95	1	EXPANDED SLAB 5' TO SW	MJF	
		DATE	NO.	REVISION	BY	

**AGRA**  
Earth & Environmental  
11335 N.E. 122nd Way, Suite 100  
Kirkland, Washington, U.S.A. 98034-6918  
Tel (206) 820-4669 Fax (206) 821-3914

SNOHOMISH COUNTY ENGINEER

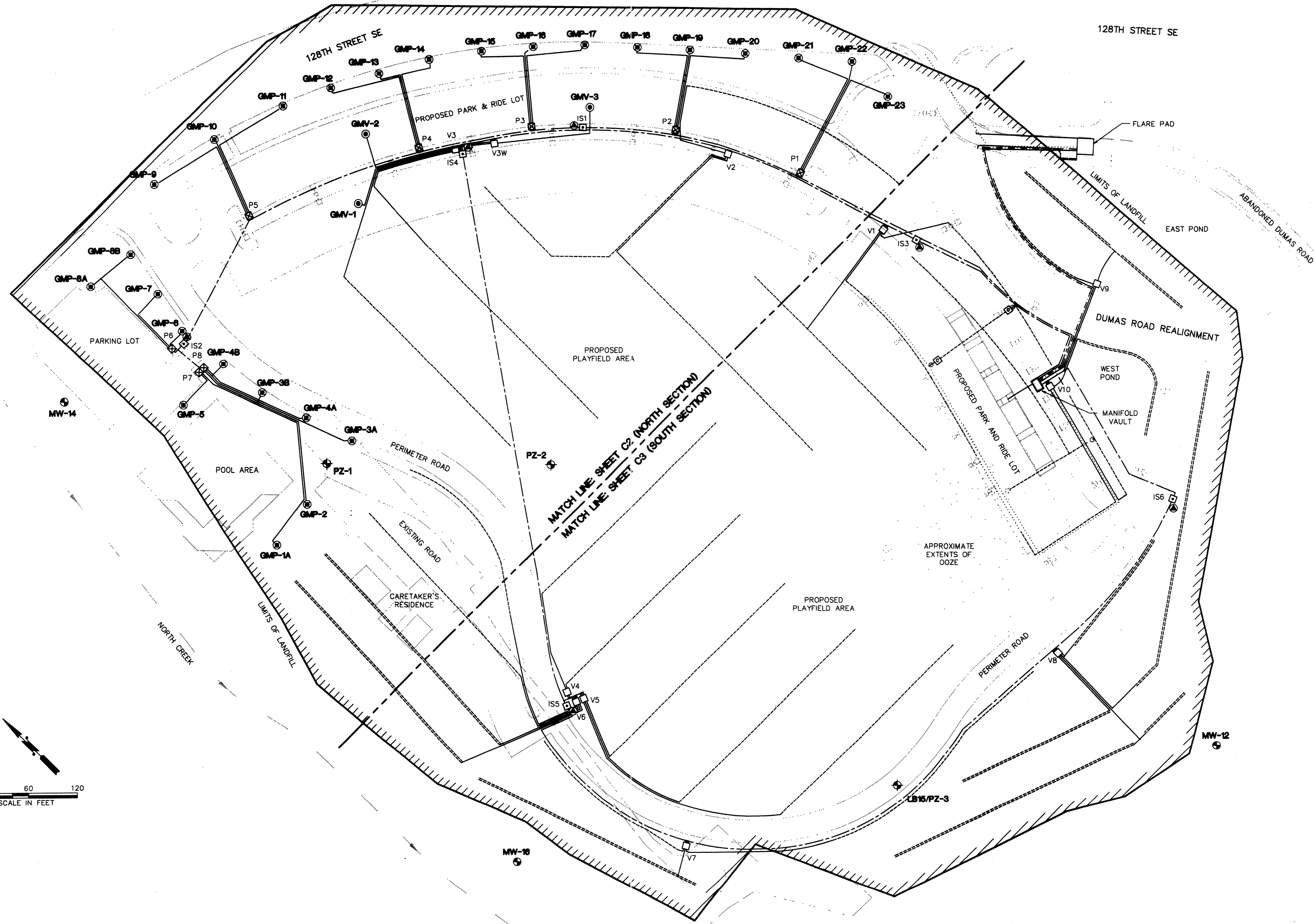
**SNOHOMISH COUNTY**  
**DEPARTMENT OF**  
**PUBLIC WORKS**  
PROJECT NO. \_\_\_\_\_

**A5-BUILT**  
128th ST. S.E. / DUMAS ROAD  
LANDFILL GAS MANAGEMENT SYSTEM  
**ADDENDUM 01:**  
**FLARE PAD SLAB DETAIL**

SURVEY NO.  
SHEET  
**A1**  
REV 1

filed 12/17/96

Sheet 332



AGRA EARTH & ENVIRONMENTAL, INC. DRAWING No. \PLAN-SET\11\07764-04\C1.DWG

PLAN CHECK	BY	DATE				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.
						10	WASH.		2 OF 10
						DESIGNED BY:	DRAWN BY:		
						MARTIN FOX	MARTIN FOX		
						DATE APPROVED:	FIELD BOOK(S):		
						DATE	NO.	REVISION	BY

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\_\_\_\_\_  
 SNOHOMISH COUNTY ENGINEER

**SNOHOMISH COUNTY**  
**DEPARTMENT OF**  
**PUBLIC WORKS**

PROJECT NO. \_\_\_\_\_

**AS-BUILT**  
 128th ST. S.E. / DUMAS ROAD  
 LANDFILL GAS MANAGEMENT SYSTEM

**SITE PLAN WITH**  
**SYSTEM LAYOUT**

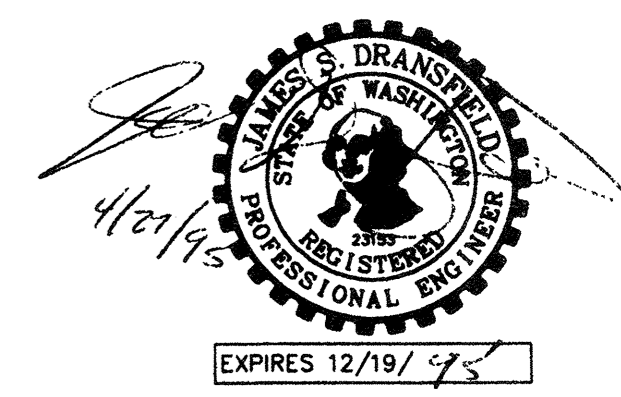
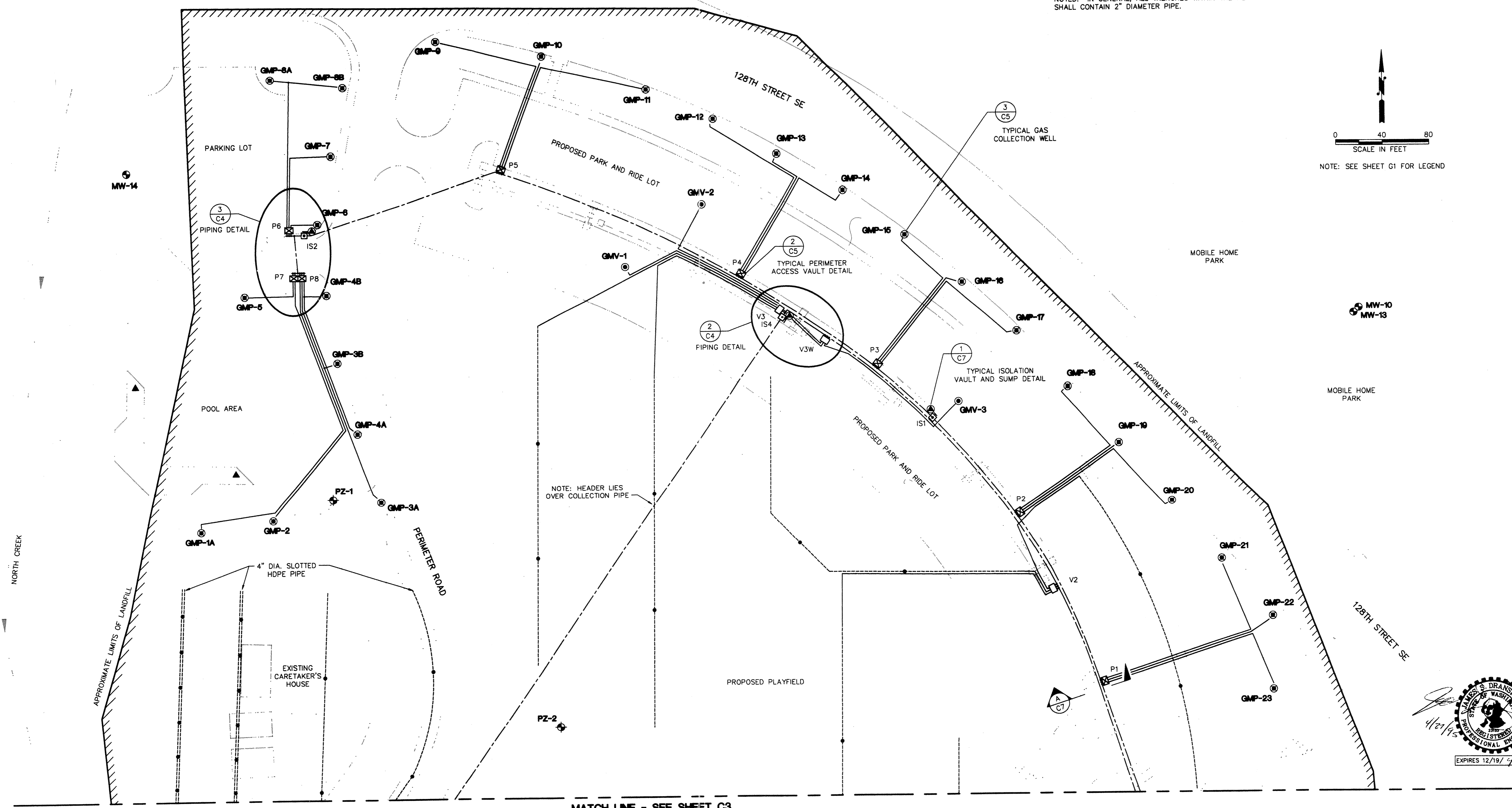
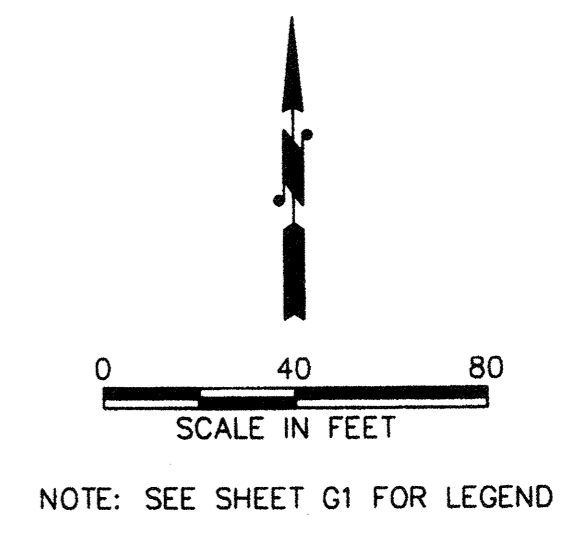
SURVEY NO.

SHEET

**C1**



- NOTES:
1. ALL HDPE BLANK PIPE TO GAS COLLECTION WELLS SHALL BE 4" DIAMETER UNLESS OTHERWISE NOTED.
  2. ALL HDPE BLANK PIPE TO GAS COLLECTION TRENCHES SHALL BE 2" DIAMETER UNLESS OTHERWISE NOTED.
  3. ALL HDPE SLOTTED PIPE SHALL BE 2" DIAMETER UNLESS OTHERWISE NOTED. IN GENERAL, ALL TRENCHES WITHIN THE PERIMETER ROAD SHALL CONTAIN 2" DIAMETER PIPE.



**AS-BUILT**

AGRA EARTH & ENVIRONMENTAL, INC. DRAWING No. \PLAN-SET\11\07764-04\C2.DWG

PLAN CHECK	BY	DATE	REVISION	BY	DATE	NO.	REVISION	BY

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.
10	WASH.		3 OF 10
DESIGNED BY:	DRAWN BY:		
MARTIN FOX	MARTIN FOX		
DATE APPROVED:	FIELD BOOK(S):		

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 11335 N.E. 122nd Way, Suite 100  
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**SNOHOMISH COUNTY**  
**DEPARTMENT OF**  
**PUBLIC WORKS**

PROJECT NO. 11-07764-04

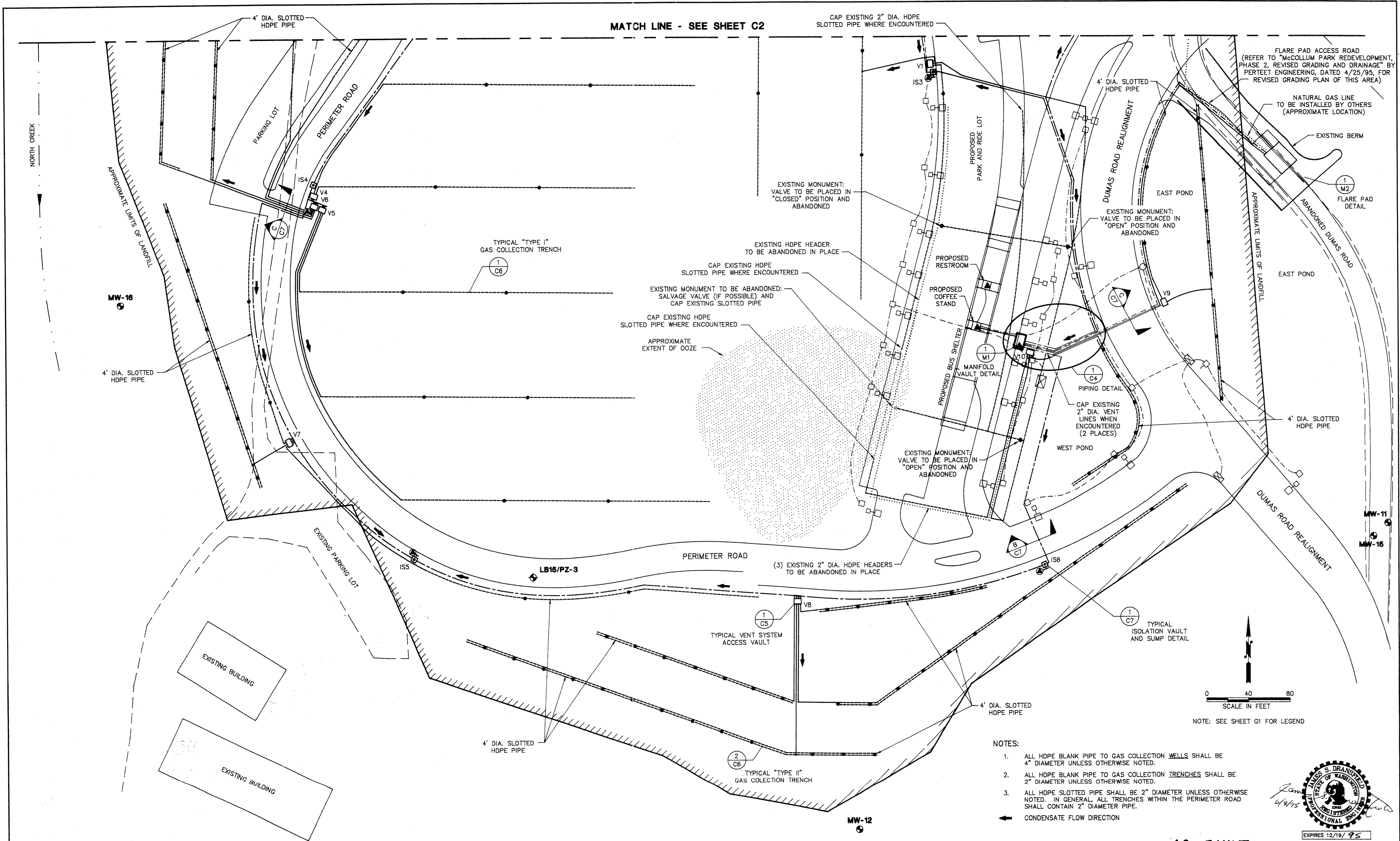
128th ST. S.E. / DUMAS ROAD  
 LANDFILL GAS MANAGEMENT SYSTEM

**PIPING LAYOUT**  
**NORTH SECTION**

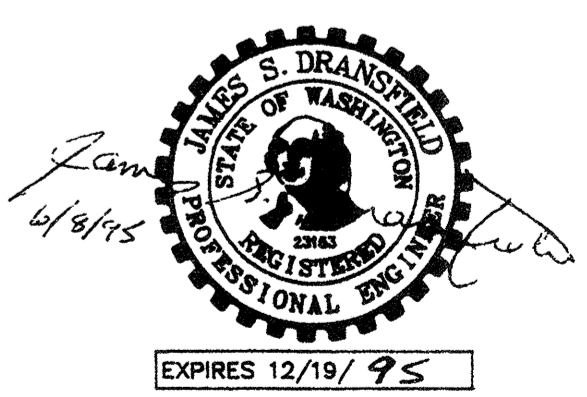
SURVEY NO.  
 SHEET  
**C2**

filed 12/17/96

See 3321



- NOTES:
1. ALL HDPE BLANK PIPE TO GAS COLLECTION WELLS SHALL BE 4" DIAMETER UNLESS OTHERWISE NOTED.
  2. ALL HDPE BLANK PIPE TO GAS COLLECTION TRENCHES SHALL BE 2" DIAMETER UNLESS OTHERWISE NOTED.
  3. ALL HDPE SLOTTED PIPE SHALL BE 2" DIAMETER UNLESS OTHERWISE NOTED. IN GENERAL, ALL TRENCHES WITHIN THE PERIMETER ROAD SHALL CONTAIN 2" DIAMETER PIPE.
- ← CONDENSATE FLOW DIRECTION



**AS-BUILT**

AGRA EARTH & ENVIRONMENTAL, INC. DRAWING No. \PLAN-SET\11\07784-04\C3-R1.DWG

PLAN CHECK	BY	DATE	NO.	REVISION	BY
		5/17/95	1	SPLIT VENT & PERIMETER SYSTEMS	MJF

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.
10	WASH.		4 OF 10

DESIGNED BY: MARTIN FOX	DRAWN BY: MARTIN FOX
DATE APPROVED:	FIELD BOOK(S):

**AGRA**  
Earth & Environmental  
11335 N.E. 122nd Way, Suite 100  
Kirkland, Washington, U.S.A. 98034-6918  
Tel (206) 820-4669 Fax (206) 821-3914

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**SNOHOMISH COUNTY**  
**DEPARTMENT OF**  
**PUBLIC WORKS**

PROJECT NO. \_\_\_\_\_

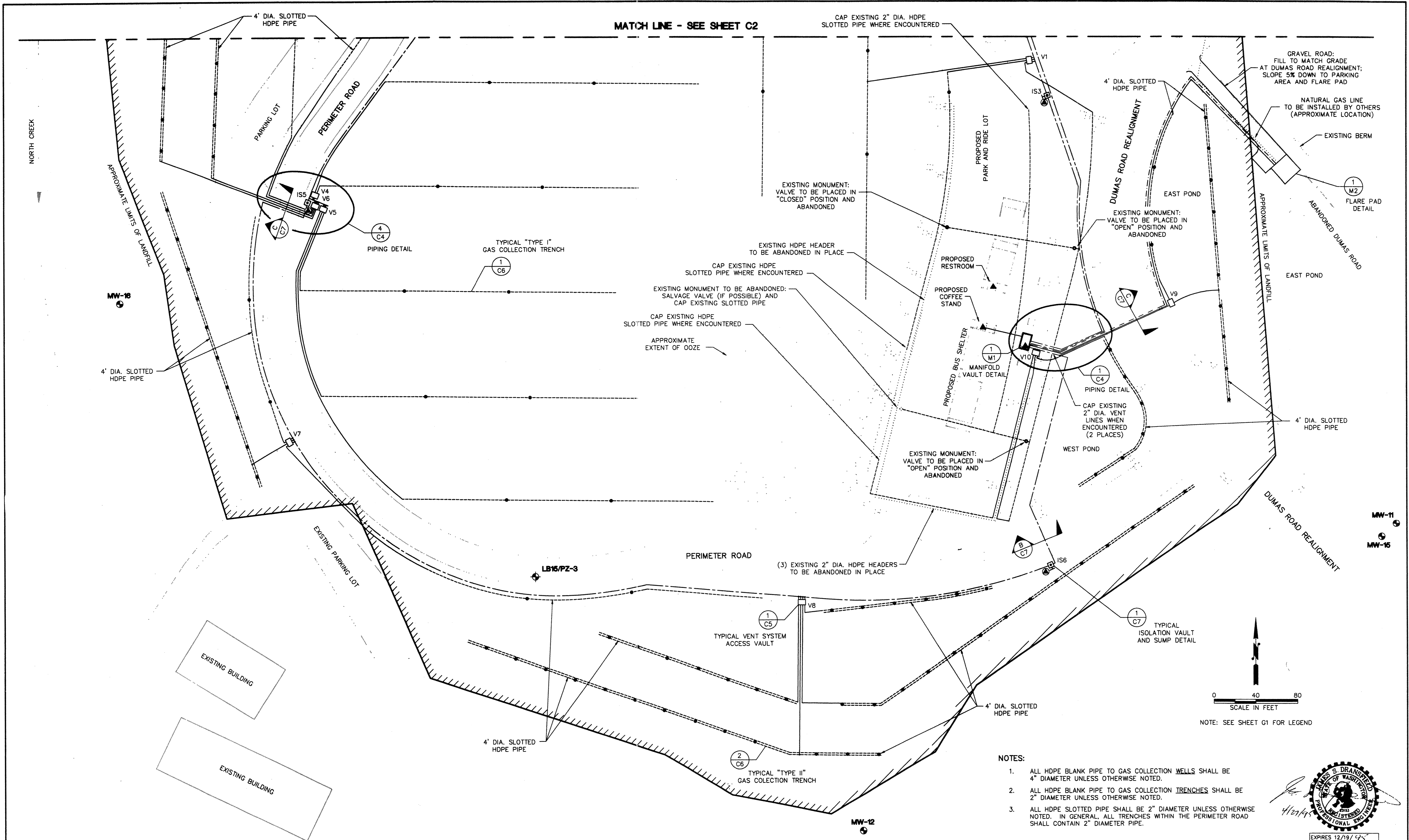
128th ST. S.E. / DUMAS ROAD  
LANDFILL GAS MANAGEMENT SYSTEM

**PIPING LAYOUT**  
**SOUTH SECTION**

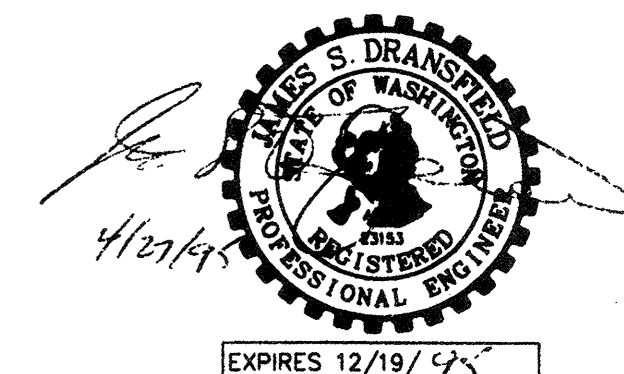
SURVEY NO.
SHEET
<b>C3</b>
REV 1

file 12/17/96

5-11-95



- NOTES:
1. ALL HDPE BLANK PIPE TO GAS COLLECTION WELLS SHALL BE 4" DIAMETER UNLESS OTHERWISE NOTED.
  2. ALL HDPE BLANK PIPE TO GAS COLLECTION TRENCHES SHALL BE 2" DIAMETER UNLESS OTHERWISE NOTED.
  3. ALL HDPE SLOTTED PIPE SHALL BE 2" DIAMETER UNLESS OTHERWISE NOTED. IN GENERAL, ALL TRENCHES WITHIN THE PERIMETER ROAD SHALL CONTAIN 2" DIAMETER PIPE.



AGRA EARTH & ENVIRONMENTAL, INC. DRAWING No. \PLAN-SET\11\07764-04\C3.DWG

PLAN CHECK	BY	DATE	REVISION	BY	DATE	NO.	REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.
							10	WASH.		4 OF 10
DESIGNED BY:		DRAWN BY:		DATE APPROVED:		FIELD BOOK(S):				
MARTIN FOX		MARTIN FOX								

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 11335 N.E. 122nd Way, Suite 100  
 Kirkland, Washington, U.S.A. 98034-6918  
 Tel (206) 820-4669 Fax (206) 821-3914

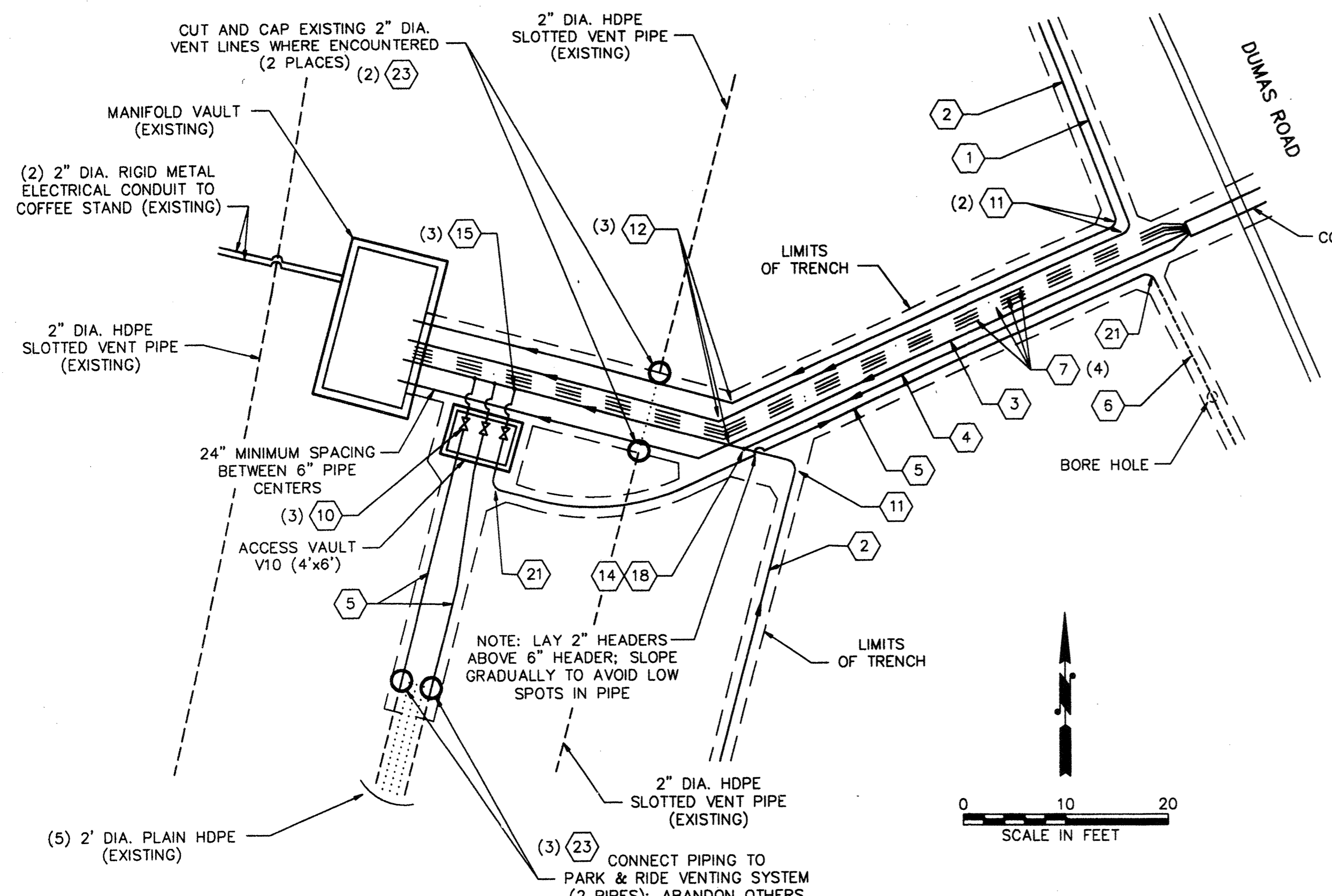
SNOHOMISH COUNTY ENGINEER

**SNOHOMISH COUNTY**  
**DEPARTMENT OF**  
**PUBLIC WORKS**

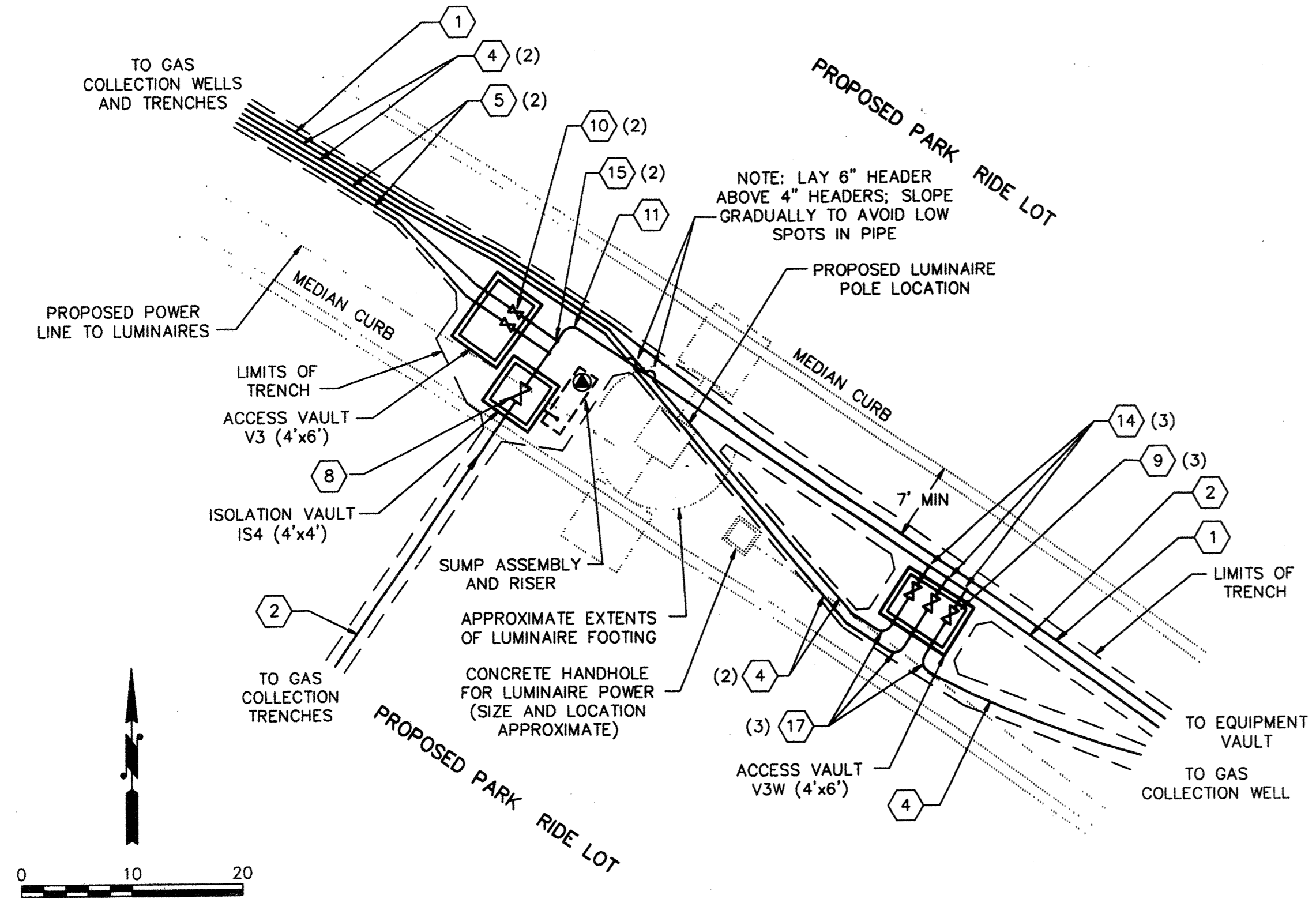
PROJECT NO. \_\_\_\_\_

**AS-BUILT**  
 128th ST. S.E. / DUMAS ROAD  
 LANDFILL GAS MANAGEMENT SYSTEM  
**PIPING LAYOUT**  
**SOUTH SECTION**

SURVEY NO.  
 SHEET  
**C3**



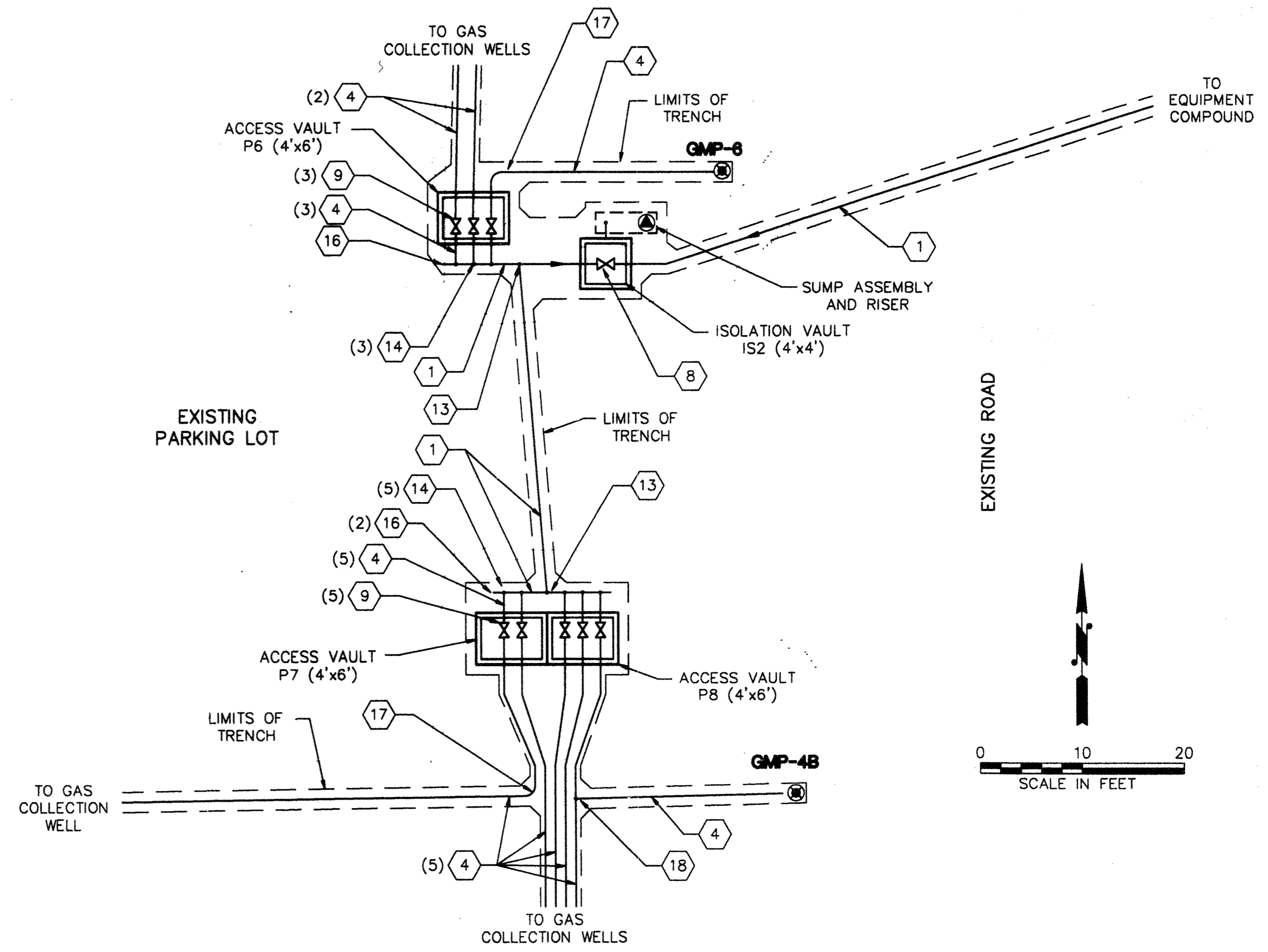
**1 PIPING DETAIL - EQUIPMENT VAULT AREA**  
SCALE: 1"=10'



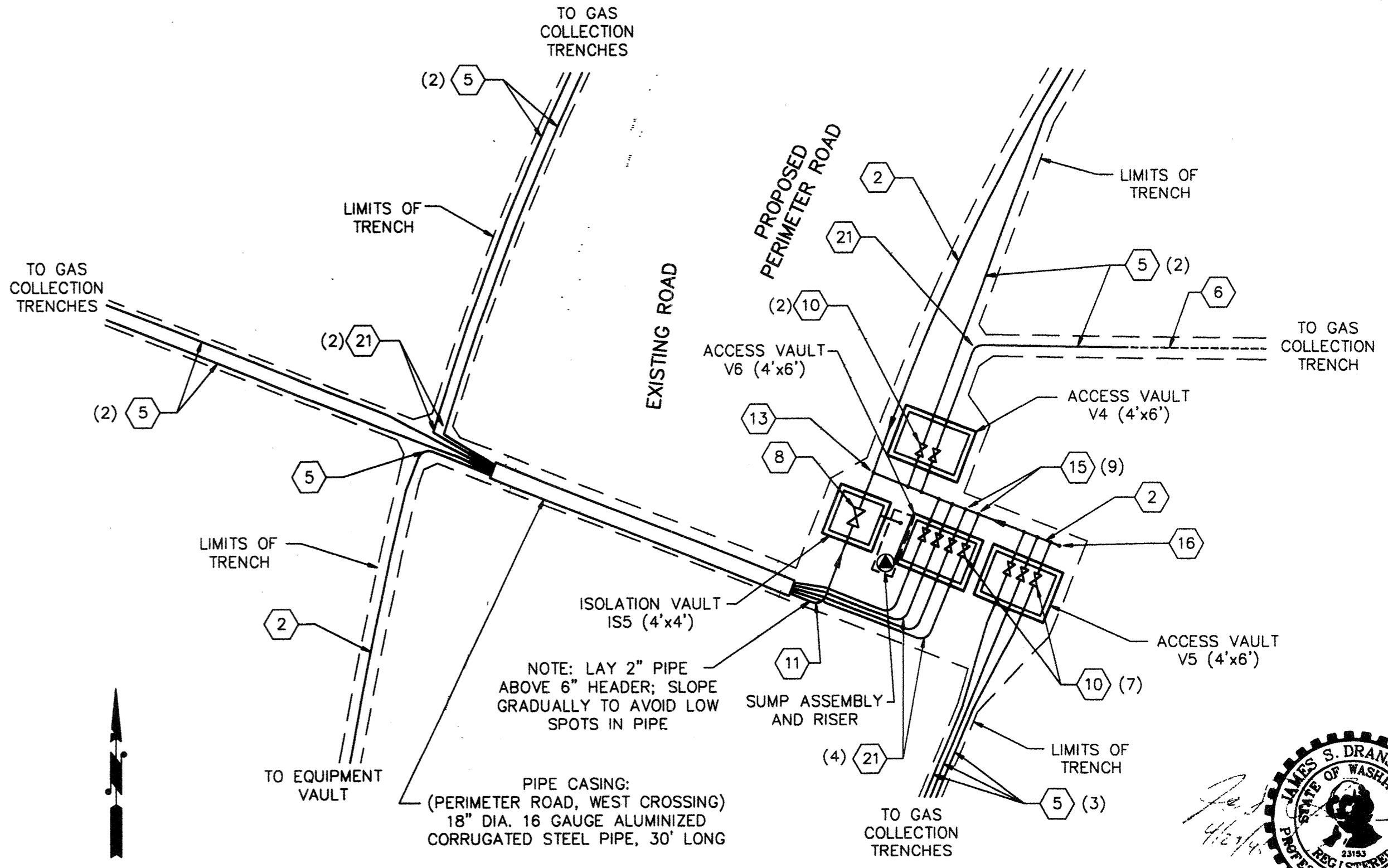
**2 PIPING DETAIL - VAULTS V3 AND V3W**  
SCALE: 1"=10'

**PIPING KEY**

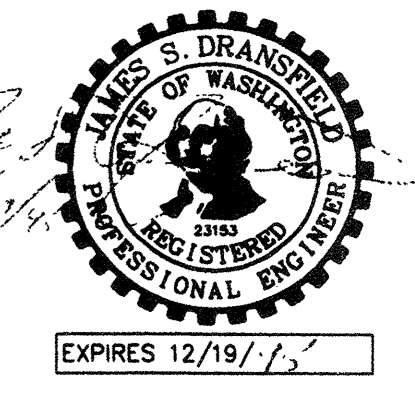
1	PERIMETER SYSTEM HEADER: 6" DIA. HDPE PIPE
2	VENT SYSTEM HEADER: 6" DIA. HDPE PIPE
3	OFF GAS LINE TO FLARE PAD: 6" DIA. HDPE PIPE
4	WELL/ACCESS VAULT HEADER: 4" DIA. HDPE PIPE
5	VENT SYSTEM LATERAL HEADER: 2" DIA. HDPE PIPE
6	GAS COLLECTION VENT PIPE: 2" DIA. HDPE PIPE WITH 0.020" SLOTS
7	ELECTRICAL/SENSOR LINE: 2" DIA. RIGID ELECTRICAL CONDUIT
8	6" DIA. HDPE BALL VALVE, FLANGED
9	4" DIA. HDPE BALL VALVE, FLANGED
10	2" DIA. HDPE BALL VALVE, FLANGED
11	6" DIA. HDPE ELBOW, SWEEP 90
12	6" DIA. HDPE ELBOW, 45
13	6" DIA. HDPE TEE
14	6 x 6 x 4 HDPE REDUCER TEE
15	6 x 6 x 2 HDPE REDUCER TEE
16	6" DIA. HDPE END CAP
17	4" DIA. HDPE ELBOW, SWEEP 90
18	4" DIA. HDPE ELBOW, 45
19	4" DIA. HDPE TEE
20	4 x 4 x 2 HDPE REDUCER TEE
21	2" DIA. HDPE ELBOW, SWEEP 90
22	2" DIA. HDPE ELBOW, 45
23	2" DIA. HDPE END CAP
(2) X	INDICATES NUMBER OF PIPE/FITTINGS (IF GREATER THAN ONE)
---	INDICATES GENERAL DOWN SLOPE OF PIPE
---	APPROXIMATE LIMITS OF TRENCH



**3 PIPING DETAIL - VAULTS P6, P7 AND P8**  
SCALE: 1"=10'



**4 PIPING DETAIL - VAULTS V4, V5 AND V6**  
SCALE: 1"=10'



AGRA EARTH & ENVIRONMENTAL, INC. DRAWING No. \PLAN-SET\11\07764-04\C4.DWG

PLAN CHECK	BY	DATE	REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.
			10	WASH.		5 OF 10
DESIGNED BY: MARTIN FOX			DRAWN BY: MARTIN FOX			
DATE APPROVED:			FIELD BOOK(S):			
DATE	NO.	REVISION	BY			

**AGRA Earth & Environmental**  
11335 N.E. 122nd Way, Suite 100  
Kirkland, Washington, U.S.A. 98034-6918  
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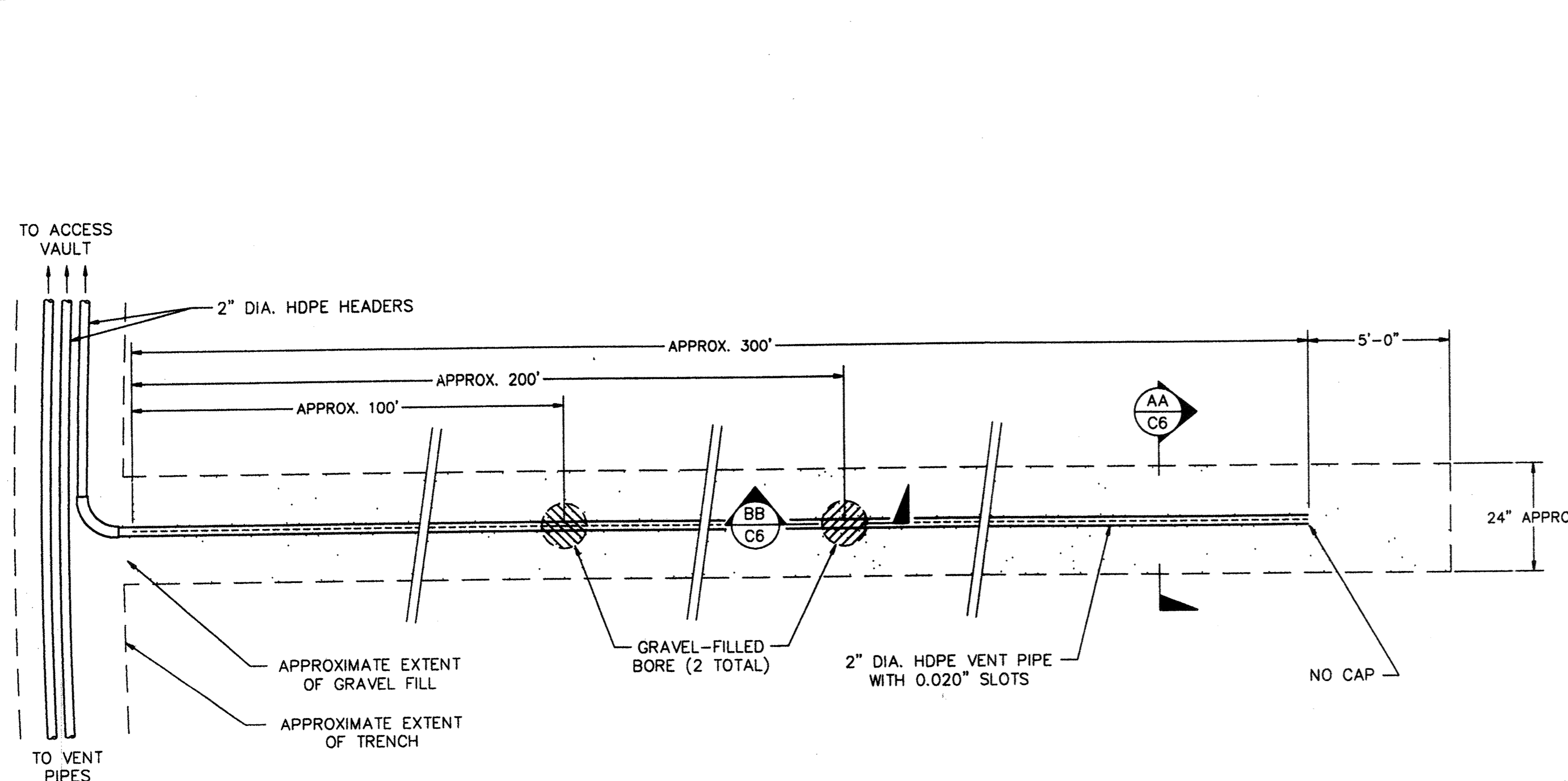
**SNOHOMISH COUNTY DEPARTMENT OF PUBLIC WORKS**

128th ST. S.E. / DUMAS ROAD  
LANDFILL GAS MANAGEMENT SYSTEM

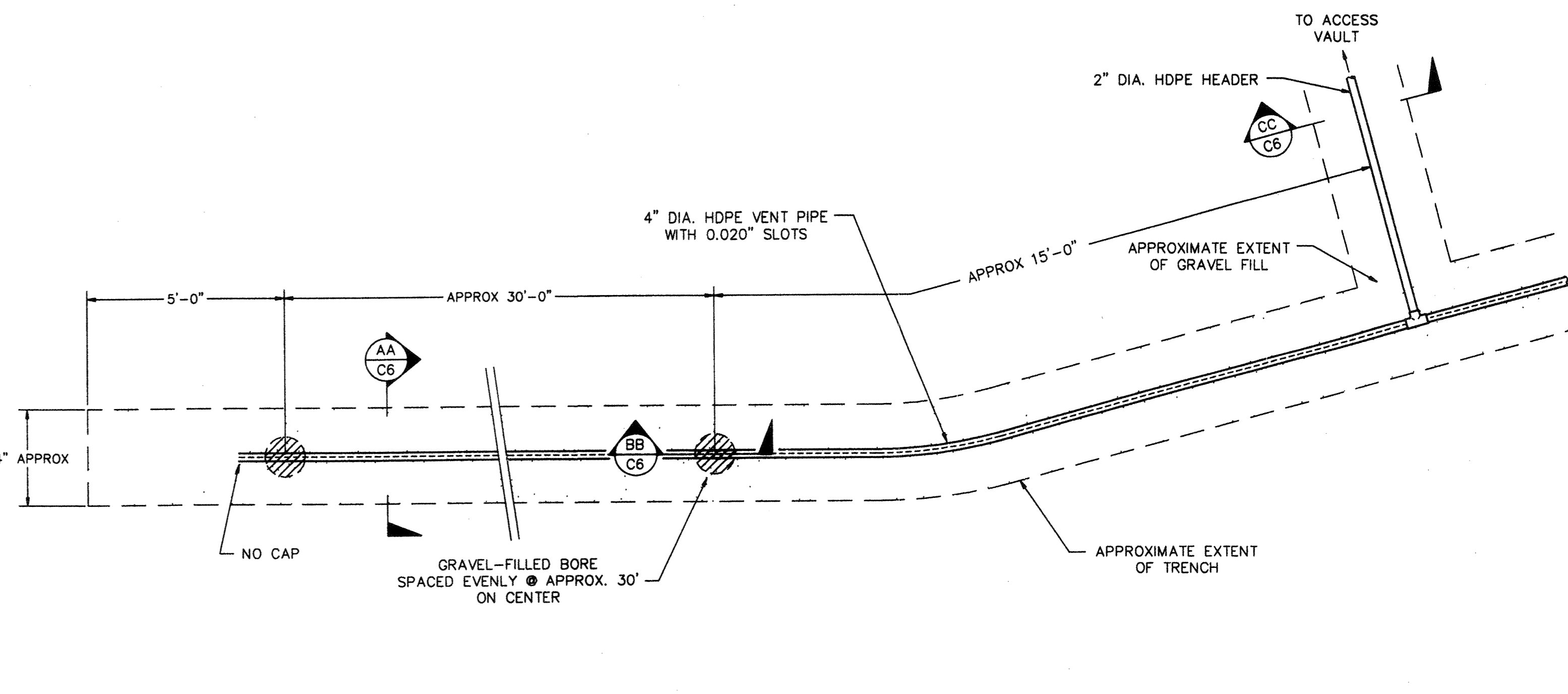
**PIPING DETAILS**

SURVEY NO.  
SHEET  
**C4**

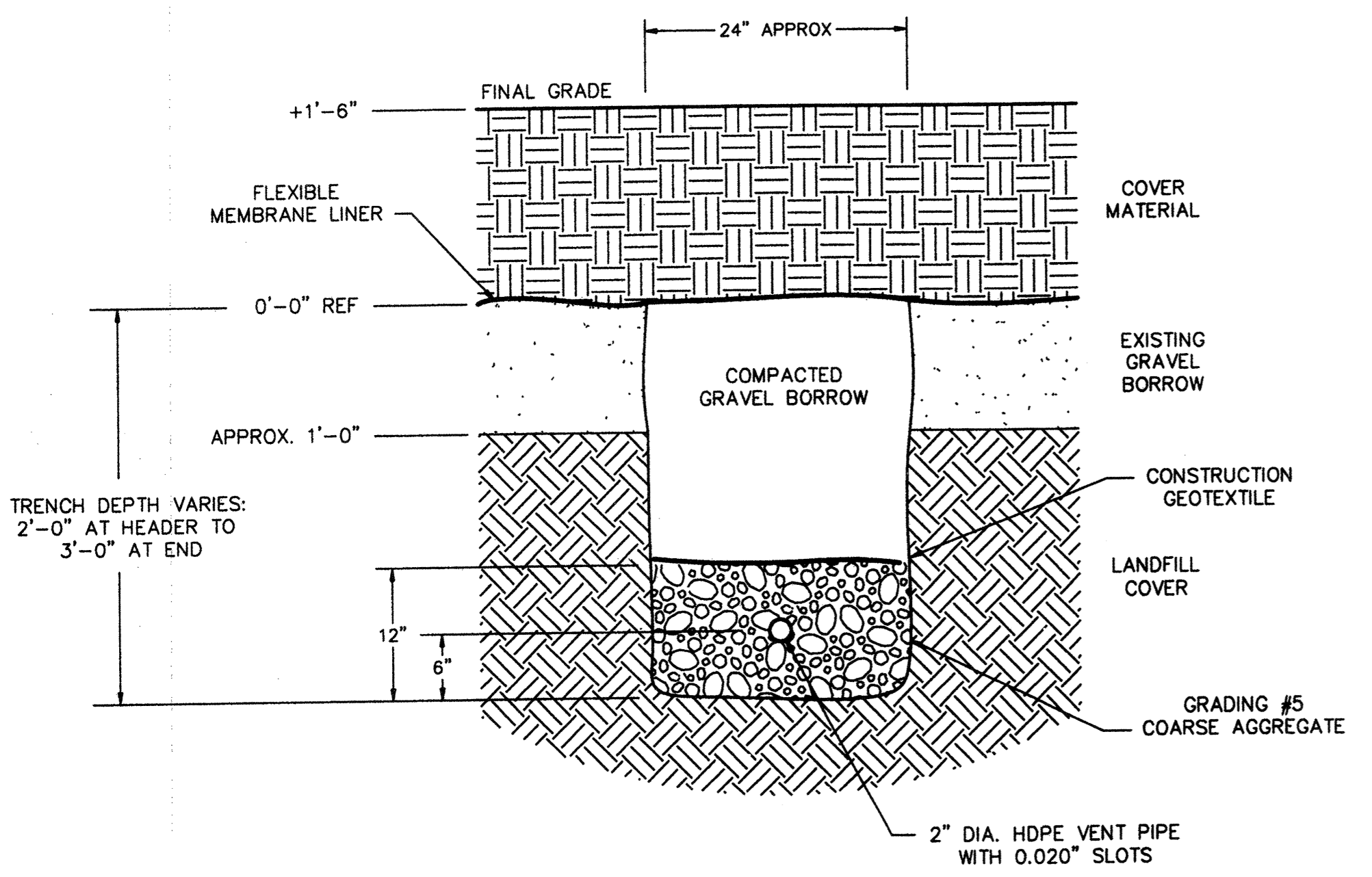




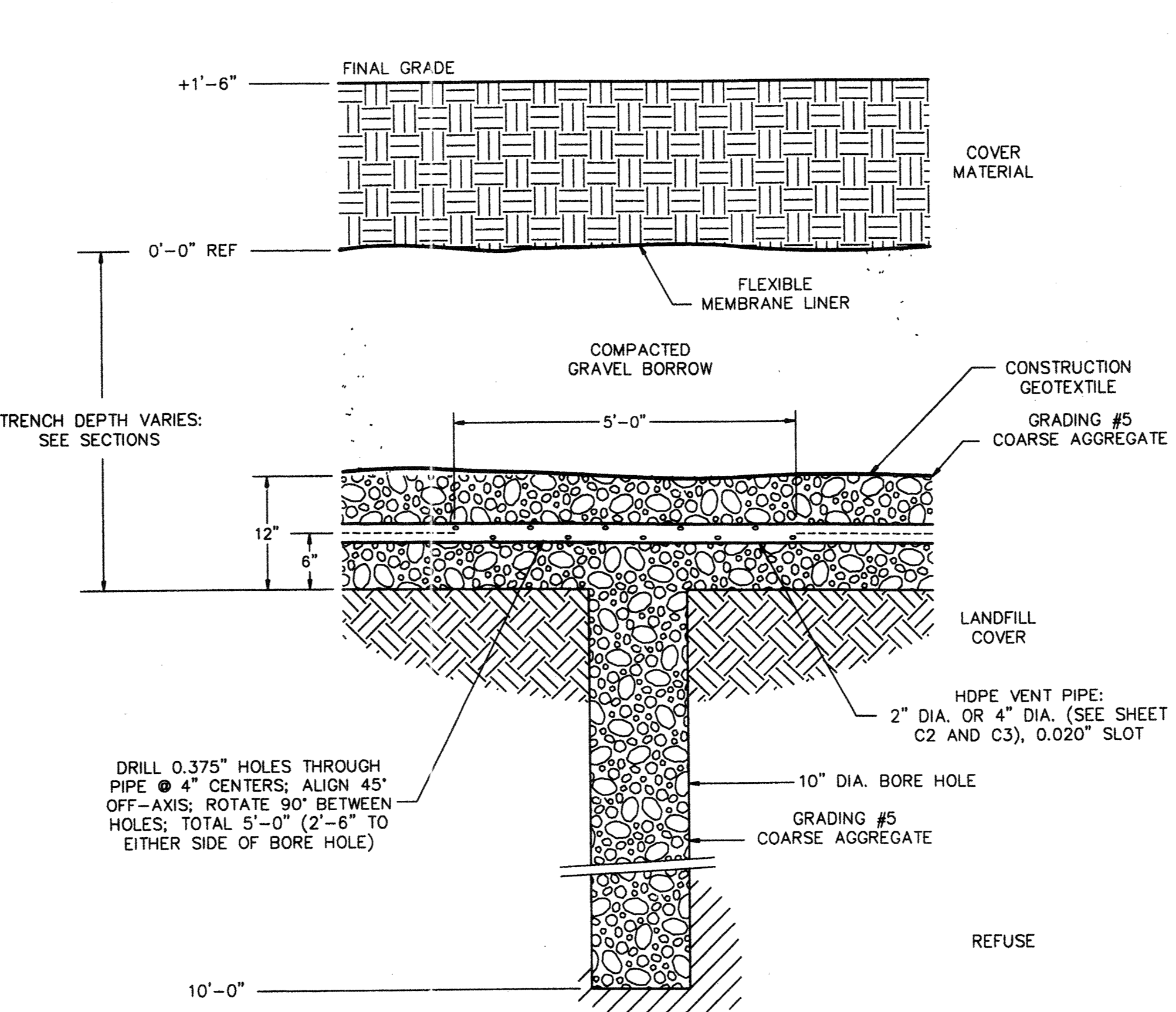
**1**  
C6  
**GAS COLLECTION TRENCH  
"TYPE I" TYPICAL DETAIL**  
NOT TO SCALE



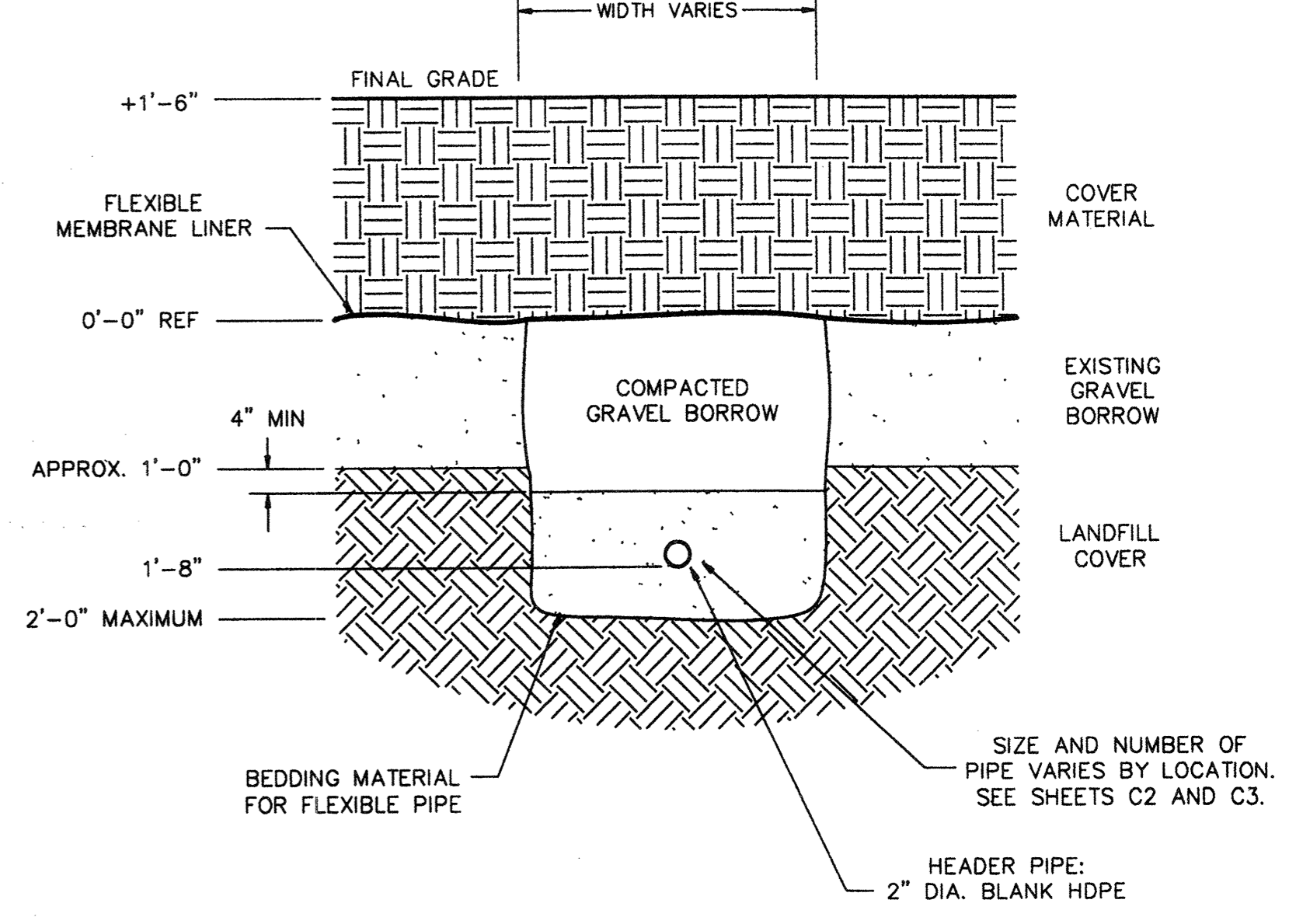
**2**  
C6  
**GAS COLLECTION TRENCH  
"TYPE II" TYPICAL DETAIL**  
NOT TO SCALE



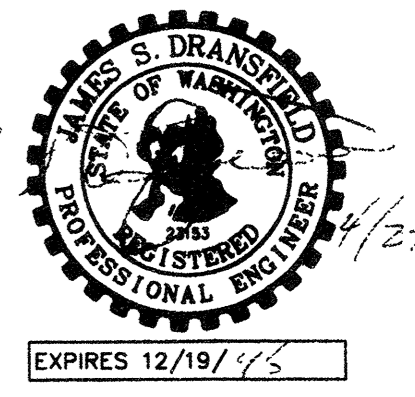
**AA**  
C6  
**GAS COLLECTION TRENCH  
"TYPES I & II" TYPICAL SECTION**  
NOT TO SCALE



**BB**  
C6  
**GRAVEL-FILLED  
BORE, TYPICAL SECTION**  
NOT TO SCALE



**CC**  
C6  
**HEADER TRENCH  
"TYPE III" TYPICAL SECTION**  
NOT TO SCALE



AGRA EARTH & ENVIRONMENTAL, INC. DRAWING No. \PLAN-SET\11\07764-04\C6.DWG

PLAN CHECK	BY	DATE	REVISION	BY	DATE	NO.	REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.
							10	WASH.		7 OF 10
DESIGNED BY:			DRAWN BY:							
MARTIN FOX			MARTIN FOX							
DATE APPROVED:			FIELD BOOK(S):							

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Earth & Environmental  
11335 N.E. 122nd Way, Suite 100  
Kirkland, Washington, U.S.A. 98034-6918  
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SNOHOMISH COUNTY ENGINEER

**SNOHOMISH COUNTY  
DEPARTMENT OF  
PUBLIC WORKS**

PROJECT NO. \_\_\_\_\_

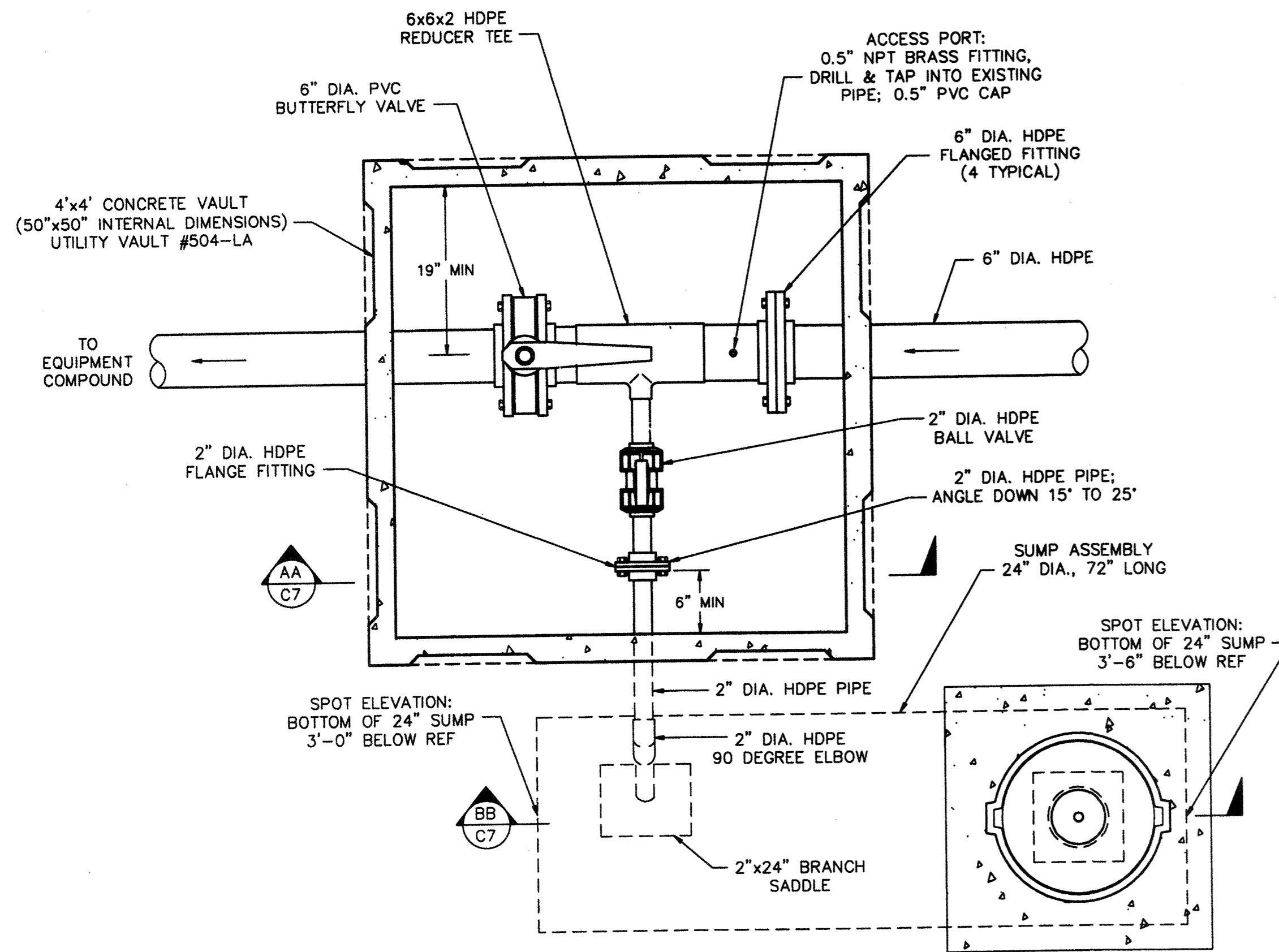
**AS-BUILT**

128th ST. S.E. / DUMAS ROAD  
LANDFILL GAS MANAGEMENT SYSTEM

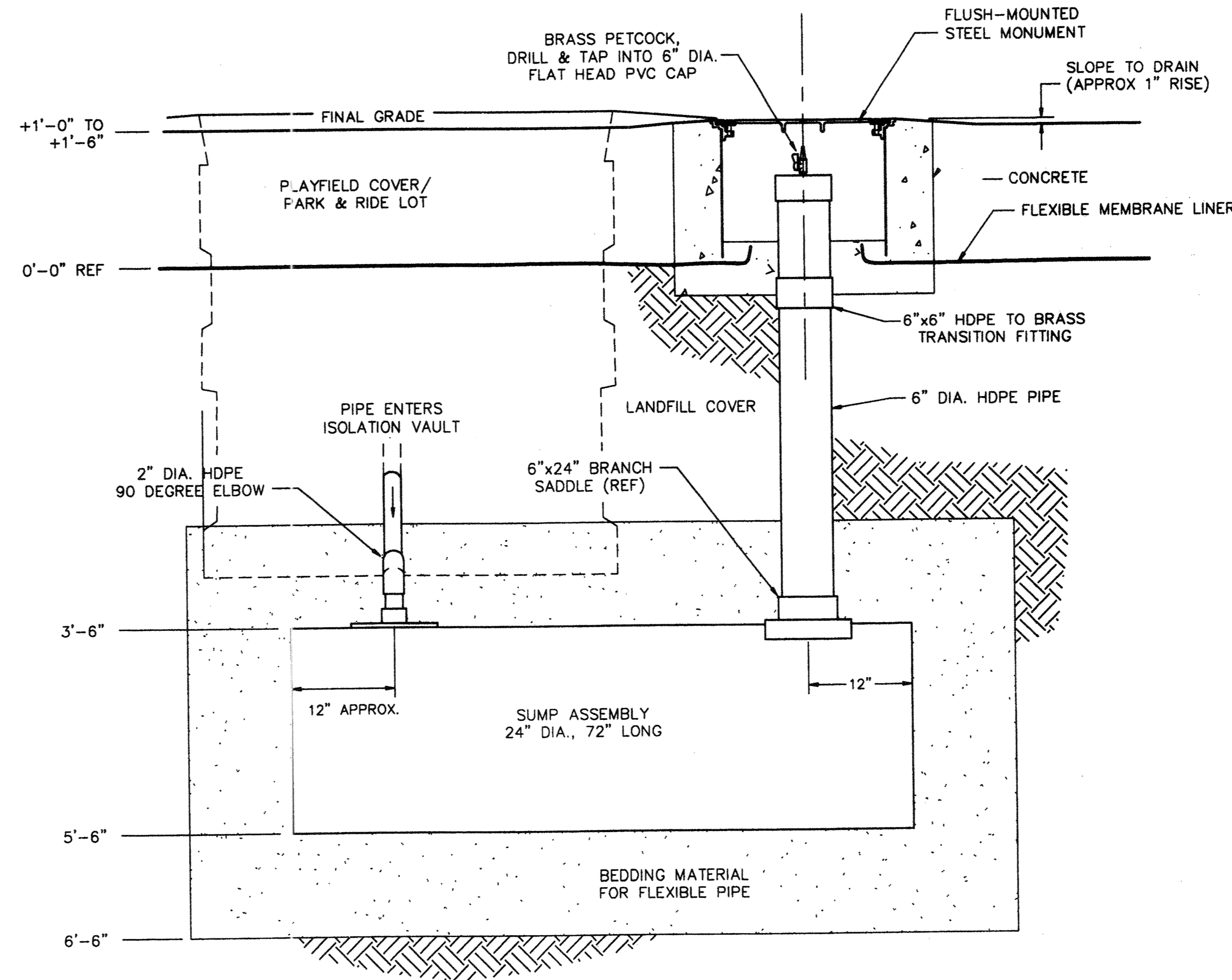
**GAS COLLECTION TRENCH  
DETAILS AND SECTIONS**

SURVEY NO.  
SHEET  
**C6**

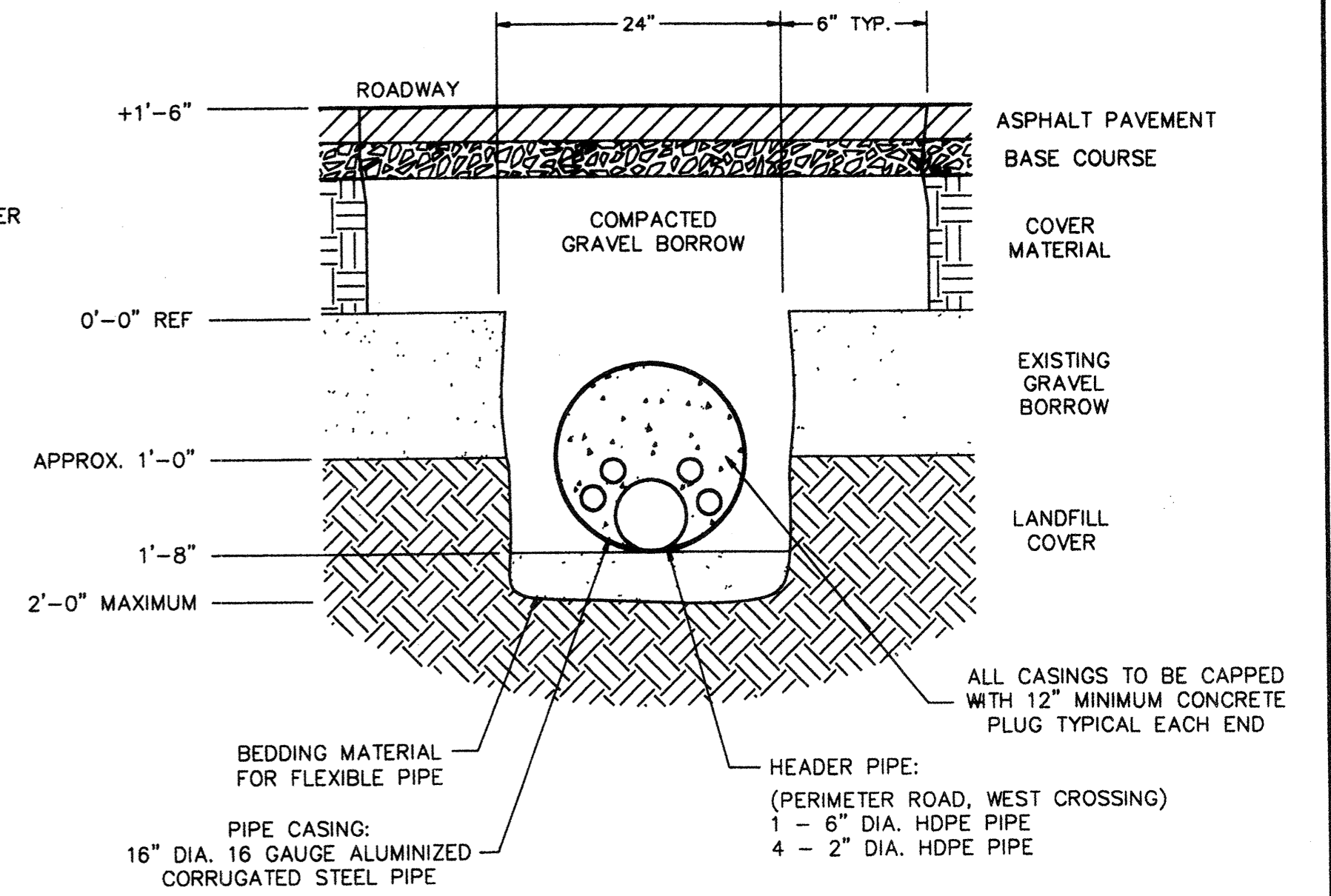




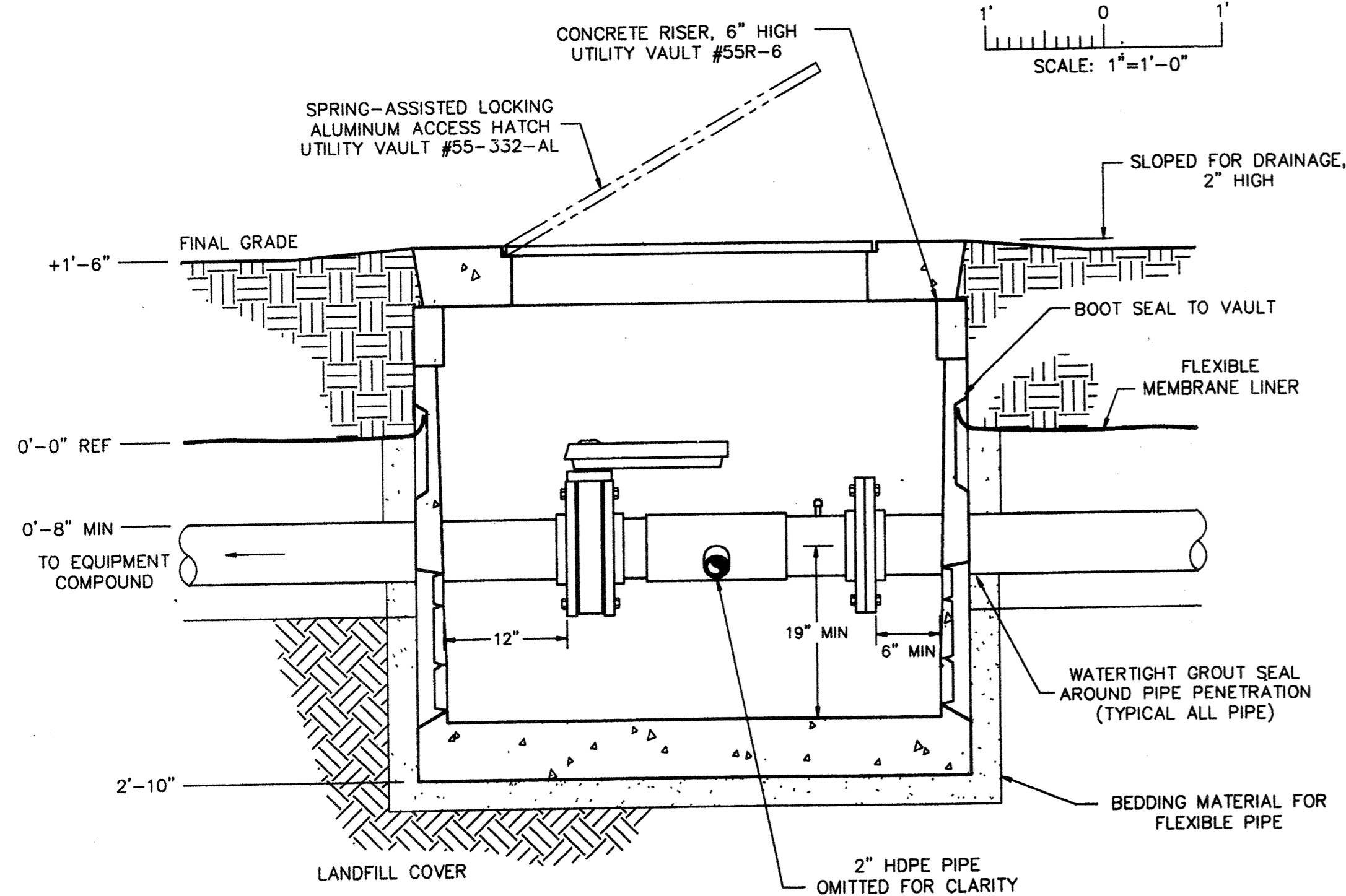
**1 ISOLATION VAULT AND SUMP DETAIL**  
 SCALE: 1"=12"



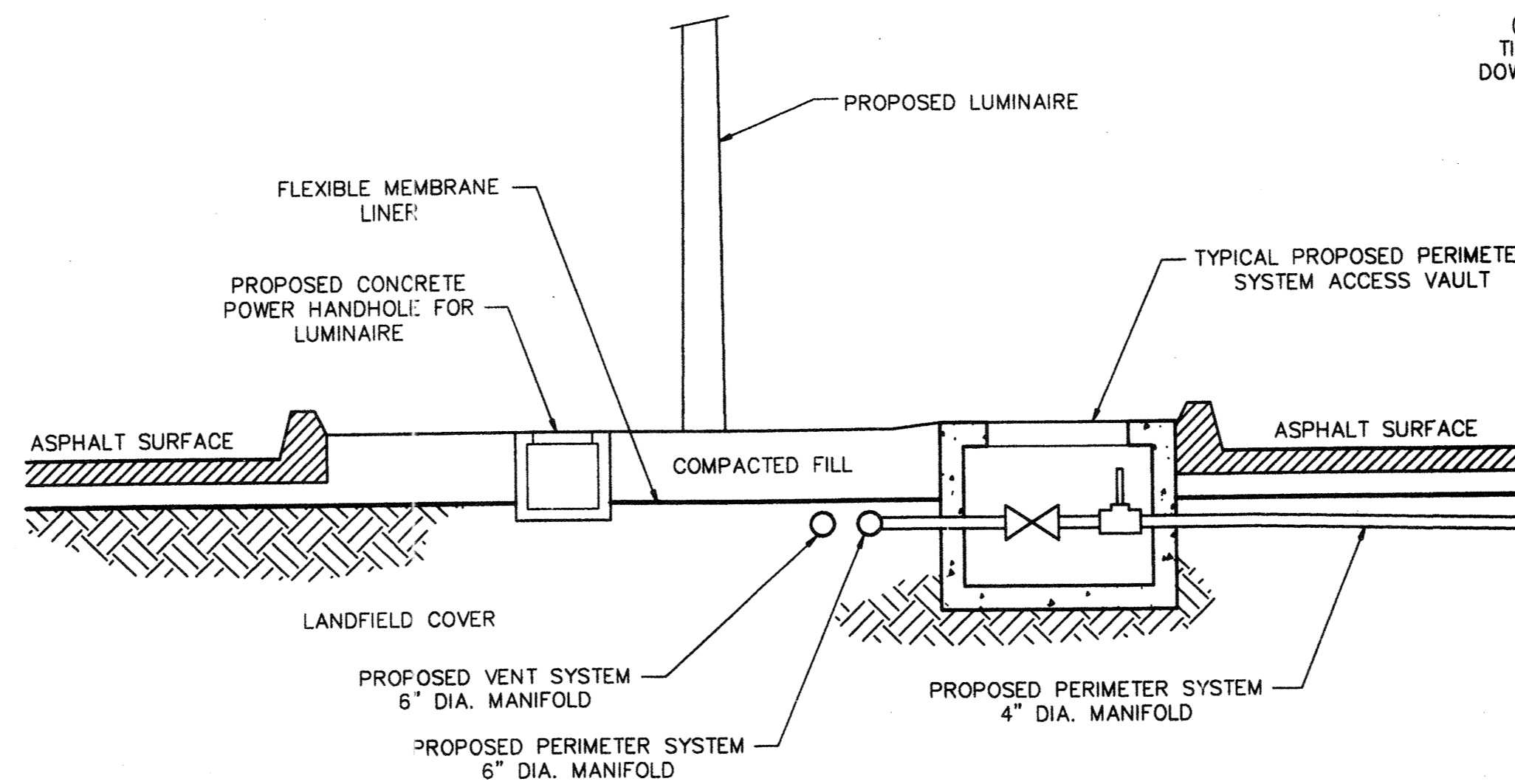
**SUMP ASSEMBLY (TYPICAL SECTION)**  
 NOT TO SCALE



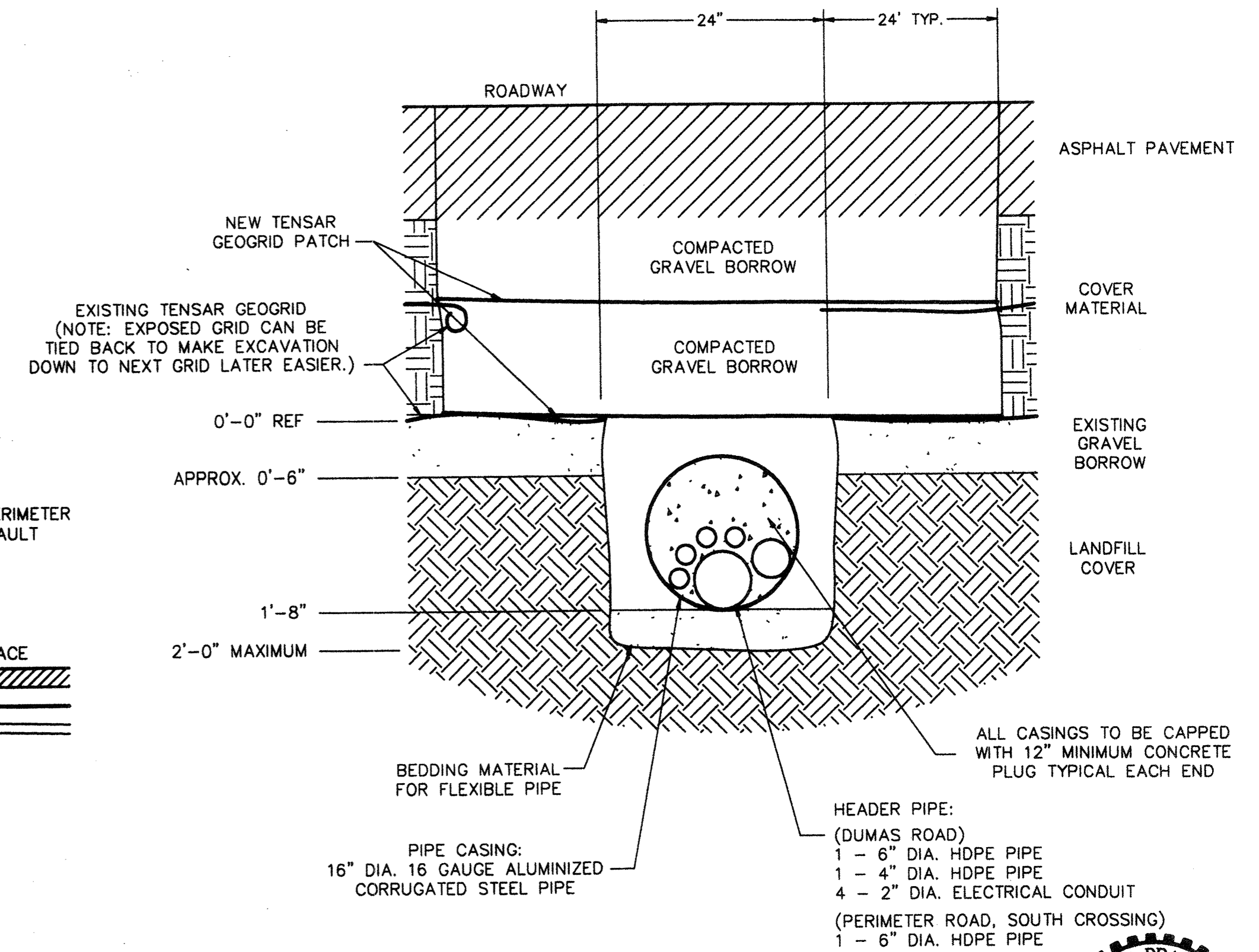
**PERIMETER ROAD WEST TRENCH CROSSING**  
 NOT TO SCALE



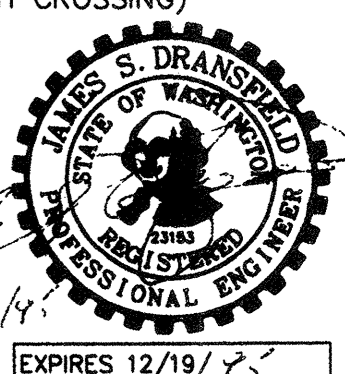
**ISOLATION VAULT (TYPICAL SECTION)**  
 SCALE: 1"=12"



**TYPICAL MEDIAN CROSS SECTION (LOOKING WEST)**  
 NOT TO SCALE



**PERIMETER ROAD SOUTH AND DUMAS ROAD TRENCH CROSSINGS**  
 NOT TO SCALE



**AS-BUILT**

AGRA EARTH & ENVIRONMENTAL, INC. DRAWING NO. \PLAN-SET\11\07784-04\C7.DWG

PLAN CHECK	BY	DATE	REVISION	BY	DATE	NO.	REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.
							10	WASH.		8 OF 10
DESIGNED BY:		DRAWN BY:		DATE APPROVED:		FIELD BOOK(S):				
MARTIN FOX		MARTIN FOX								

**AGRA**  
 Earth & Environmental  
 11335 N.E. 122nd Way, Suite 100  
 Kirkland, Washington, U.S.A. 98034-6918  
 Tel (206) 820-4669 Fax (206) 821-3914

**SNOHOMISH COUNTY**  
 DEPARTMENT OF  
 PUBLIC WORKS

128th ST. S.E. / DUMAS ROAD  
 LANDFILL GAS MANAGEMENT SYSTEM  
**ISOLATION VAULT AND SUMP  
 DETAILS AND SECTIONS**

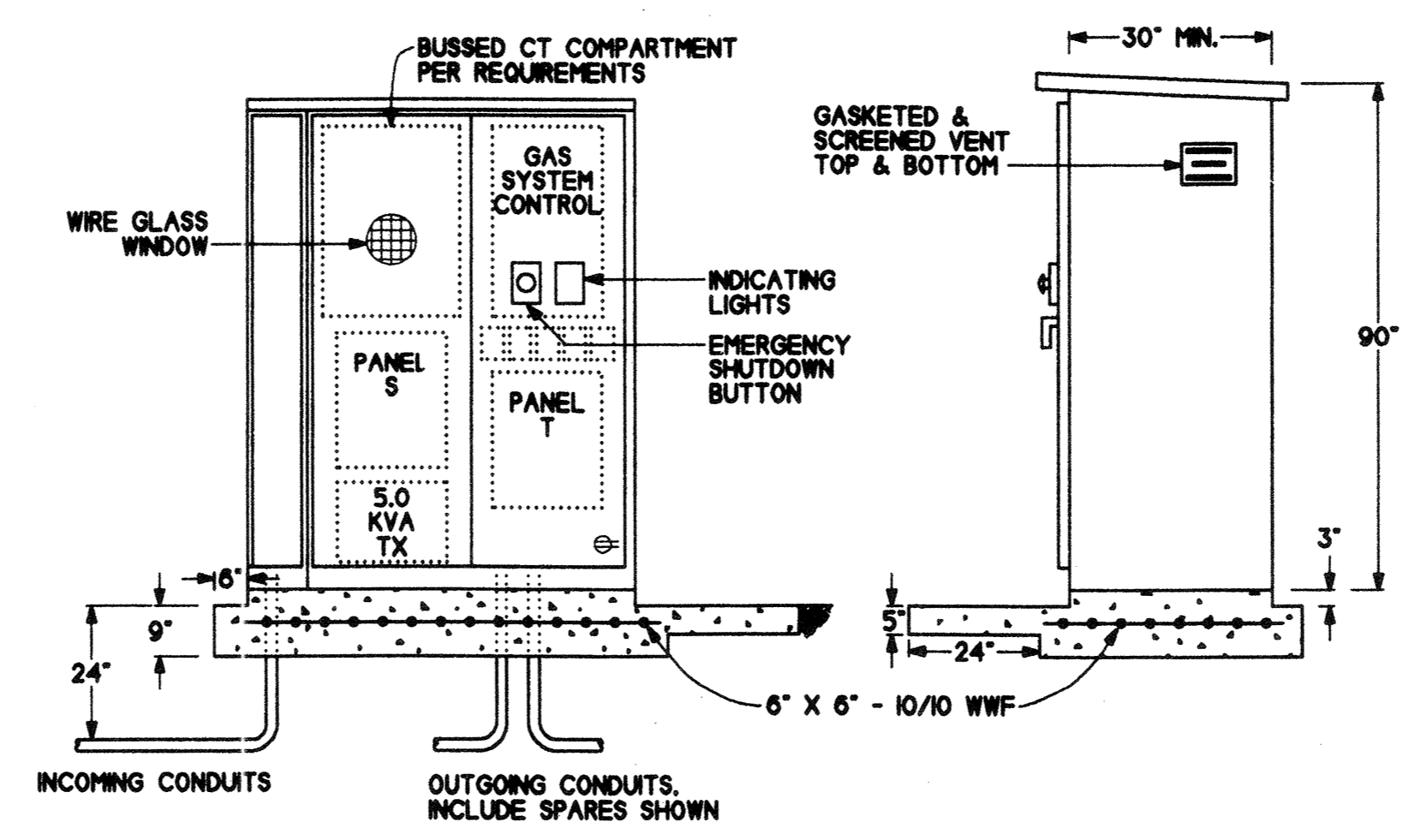
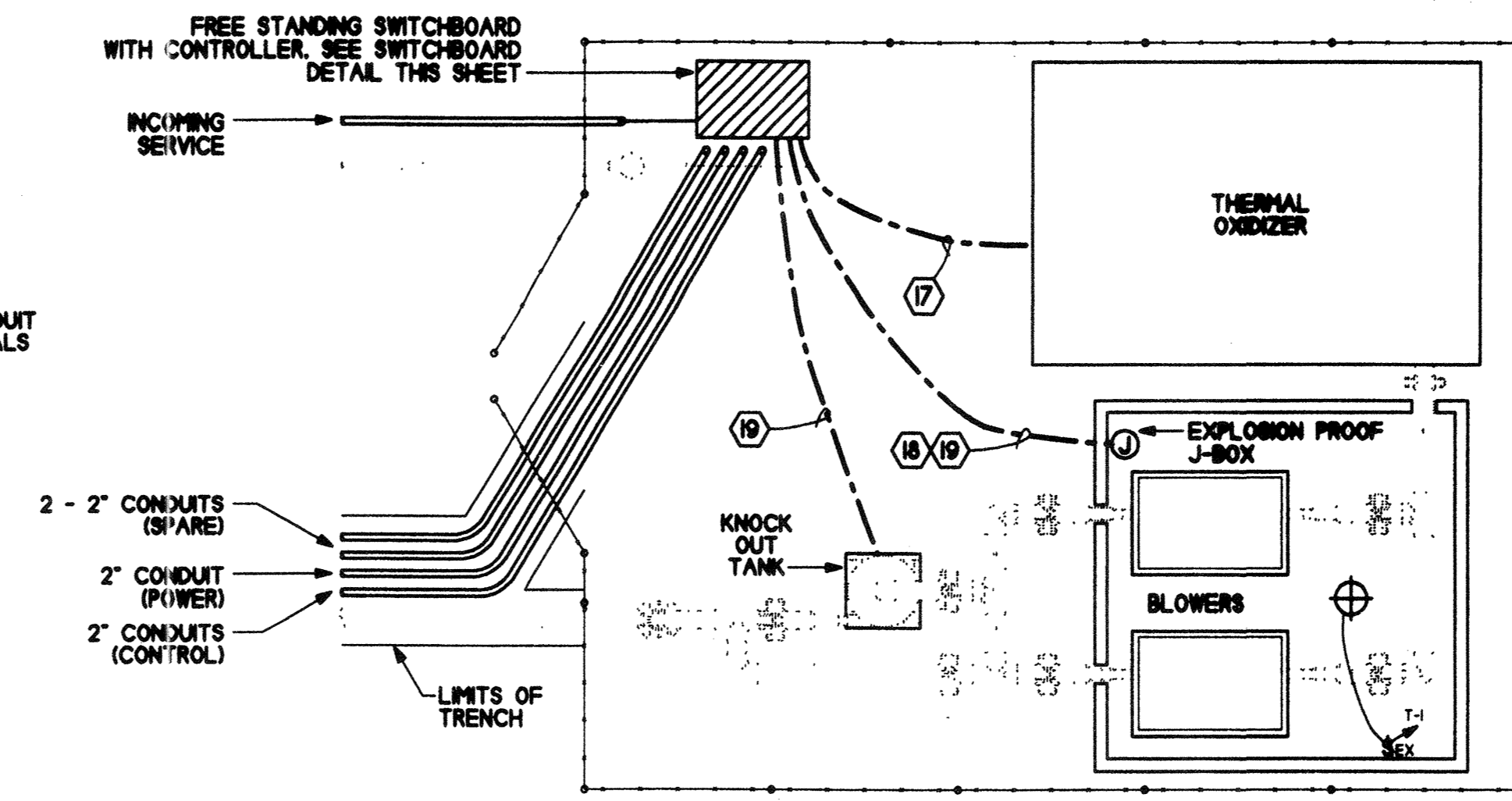
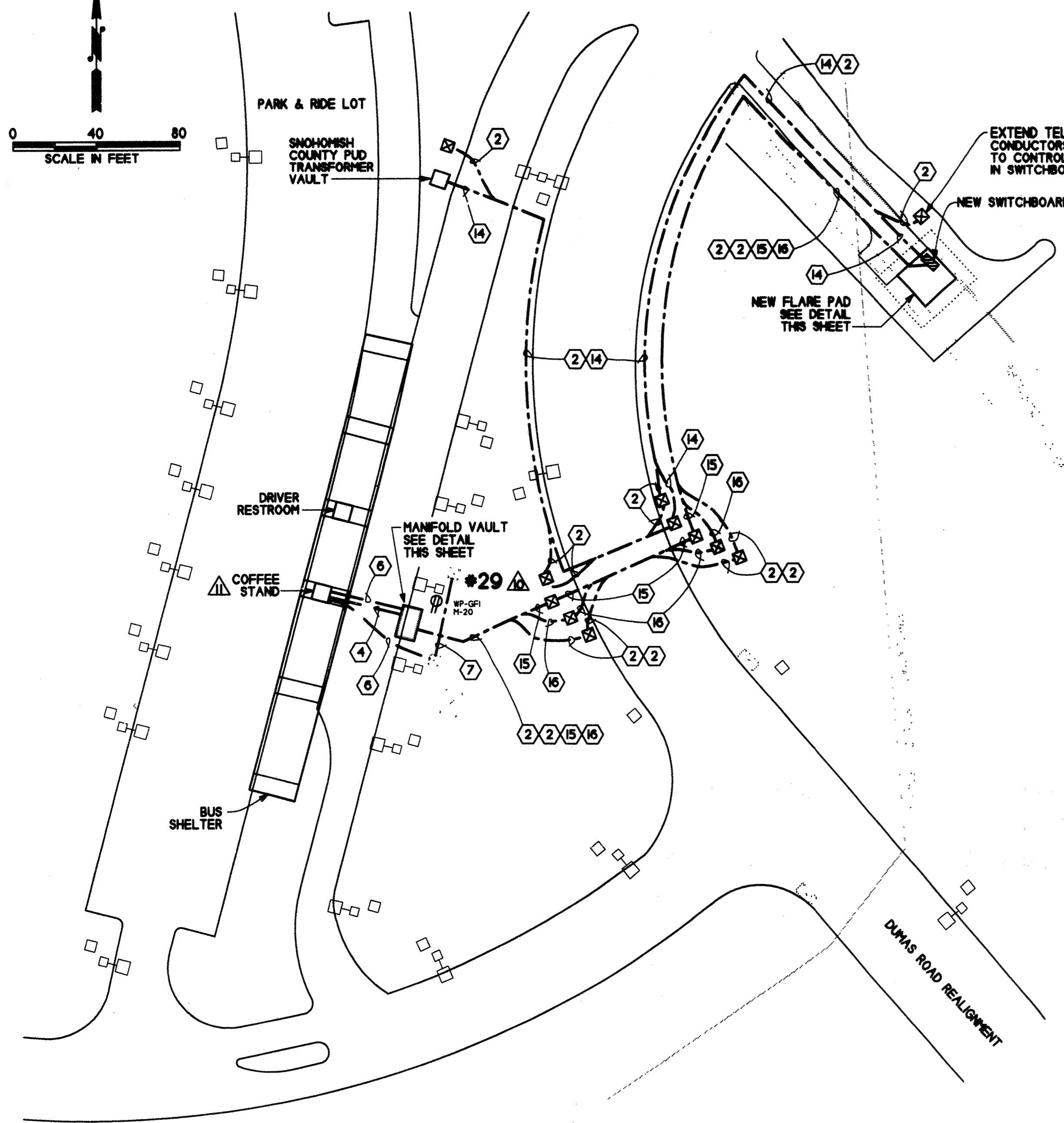
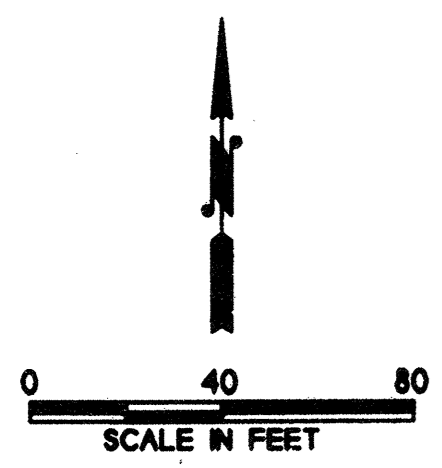
SURVEY NO.  
 SHEET  
**C7**

SNOHOMISH COUNTY ENGINEER

PROJECT NO.

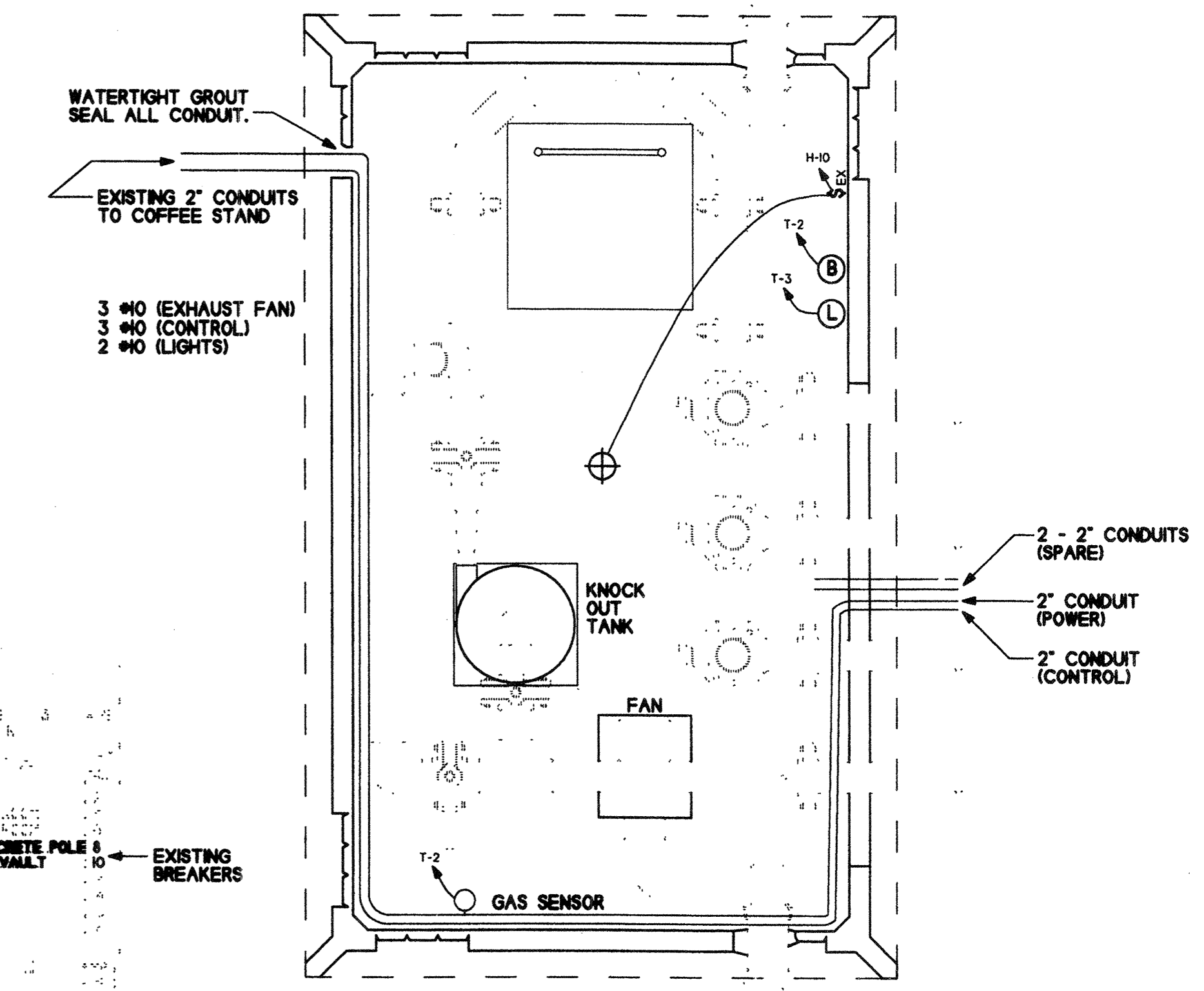
1/27/96

Sur. 3321



- KEY**
- ⊕ EXPLOSION RESISTANT LUMINAIRE, 120 VOLT, 150 WATT INCANDESCENT, HUBBELL #HLEM20
  - Ⓚ EMERGENCY SHUTDOWN BUTTON, EXPLOSION PROOF, ALLEN BRADLEY #4HZ4 OR APPROVED EQUAL
  - Ⓛ INDICATOR LIGHTS (TWO EACH), 30.5mm, EXPLOSION PROOF ALLEN BRADLEY #800H OR APPROVED EQUAL
  - Ⓜ STRUCTURAL PLASTIC HANDHOLE, SIMILAR TO WSDOT J-16 TYPE 1
  - Ⓜ-OR DUPLEX RECEPTACLE 20A, 120 VOLT (WEATHERPROOF COVER, GROUND FAULT INTERRUPTER)
  - Ⓜ-EX EXPLOSION PROOF SWITCH SPST SS COVER 20 A, 120 V.
  - ⑭ 2" C. 4 #2
  - ⑫ 2" C. WITH NYLON PULL STRING (FUTURE OR TELEPHONE)
  - ④ EXISTING 2" C. WITH 1 - 25/c BELDON #9948
  - ⑥ EXISTING 2" C. WITH 6 #10, 1 #10 GRND. ADD 2 #10.
  - ⑮ 2" C. 1 - 11/c #14, 1 #10 GRND.
  - ⑯ 2" C. 2 - SHIELDED CABLE, 18GA/4c BELDON #9418
  - ⑰ 2" C. 3 #10, 1 - 11/c #14, 1 #10 GRND.
  - ⑱ 2" C. 11 #10, 1 - 11/c #14, 1 #10 GRND.
  - ⑩ 1" C. 1 - SHIELDED CABLE, 18GA/4c BELDON #9418

- KEY**
- ⚠ REPLACE CONCRETE LIGHTING STANDARD #29 WITH SAME EXCEPT WITH FESTOON OUTLET
  - ⚠ PROVIDE SIZE 0 MOTOR STARTER WITH HOA AND PILOT LIGHT IN COFFEE STAND (EXHAUST FAN)



**PANEL SCHEDULE**

NO.	LOCATION: SWITCHBOARD	277/480	VOLTS	3	PHASE	4	WIRE
NO.	SERVING: FLARE PAD	100	AMP	WITH MAIN BREAKER			
CKT NO.	LOAD DESCRIPTION	KVA	TRIP AMPS	TRIP AMPS	KVA	LOAD DESCRIPTION	CKT NO.
1	BLOWER	3.0	30	30	3.0	BLOWER	2
7	THERMAL OXIDIZER	5.0	30	30	1.5	EXHAUST FAN (BLOWER ROOM)	8
13	SPARE	30		30		SPARE	14
19	SPARE	20				SPACE ONLY	20
21	SPARE	20				SPACE ONLY	22
23	SPARE	20				SPACE ONLY	24
25	SPARE ONLY					SPACE ONLY	26
27	SPARE ONLY					SPACE ONLY	28
29	SPARE ONLY					SPACE ONLY	

REMARKS: \_\_\_\_\_

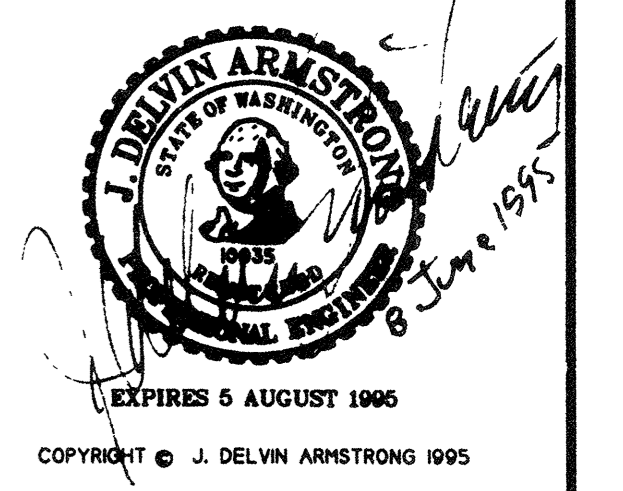
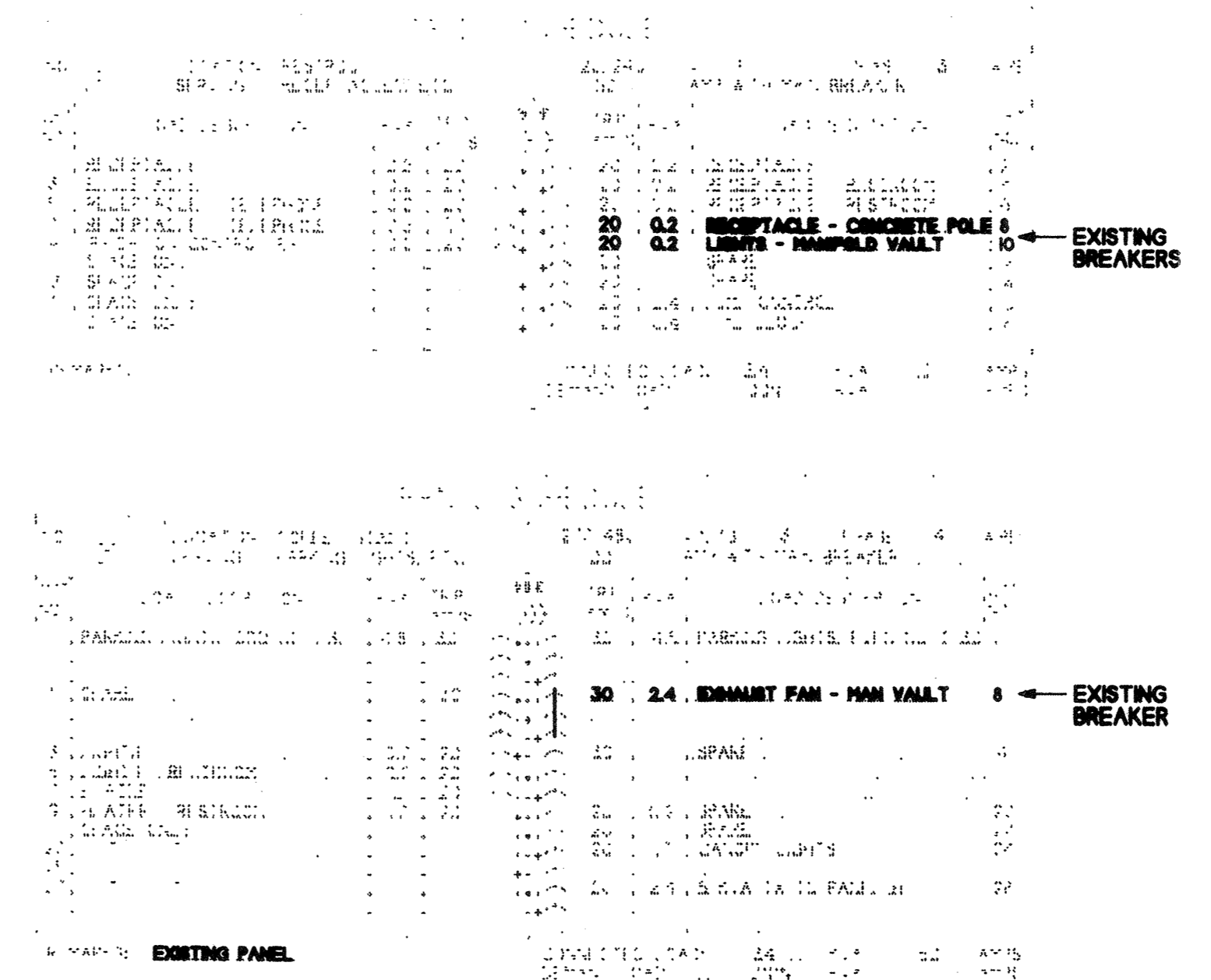
CONNECTED LOAD: 15.0 KVA 18.0 AMPS  
DEMAND LOAD: 100% KVA AMPS

**PANEL SCHEDULE**

NO.	LOCATION: SWITCHBOARD	120/240	VOLTS	1	PHASE	3	WIRE
NO.	SERVING: FLARE PAD CONTROL	50	AMP	WITH MAIN BREAKER			
CKT NO.	LOAD DESCRIPTION	KVA	TRIP AMPS	TRIP AMPS	KVA	LOAD DESCRIPTION	CKT NO.
1	LIGHTS - BLOWER ROOM	0.5	20	20	0.5	GAS SENSORS \ STOP BUTTONS	2
3	INDICATOR LIGHTS	0.5	20	20		SPARE	4
5	RECEPTACLE - SWITCHBOARD	0.5	20	20		SPARE	6
7	SPARE	20		20		SPARE	8
9	SPARE	20		20		SPARE	10
11	SPARE	20		20		SPARE	12
13	SPACE ONLY					SPACE ONLY	14
15	SPACE ONLY					SPACE ONLY	16
17	SPACE ONLY					SPACE ONLY	18

REMARKS: \_\_\_\_\_

CONNECTED LOAD: 2.0 KVA 8.3 AMPS  
DEMAND LOAD: 100% KVA AMPS



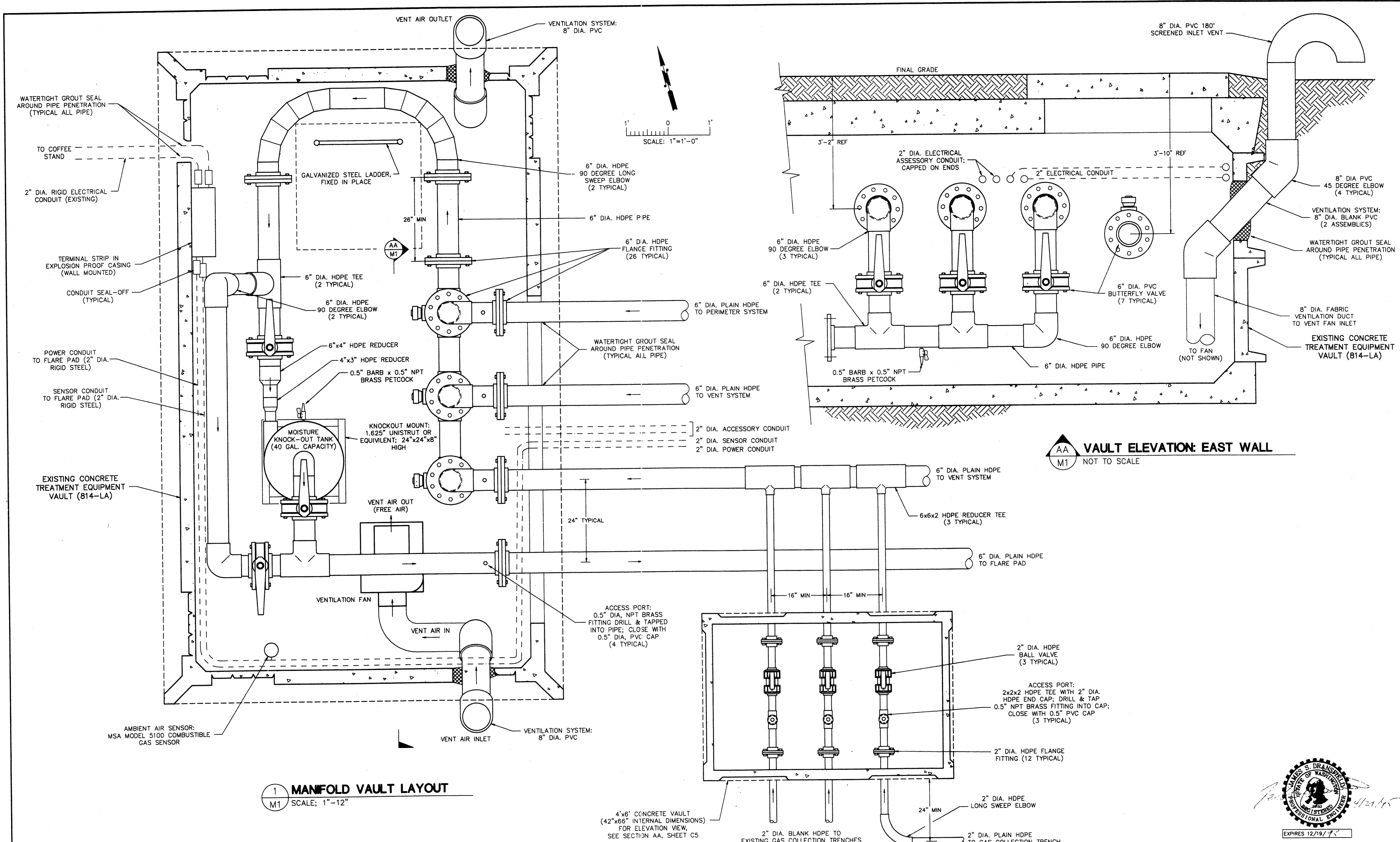
**AS-BUILT**

PLAN CHECK	BY	DATE	REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	<b>JD-21 ENGINEERS</b> 1840 - 130th AVENUE N.E. SUITE 15 BELLEVUE, WASHINGTON 98005 (206) 885-2165 FAX (206) 885-9797	<b>SNOHOMISH COUNTY DEPARTMENT OF PUBLIC WORKS</b> PROJECT NO. W-7764	McCallum Park PARK & RIDE / TRANSIT CENTER <b>FLARE PAD ELECTRICAL</b>	SURVEY NO.
			10	WASH.		E-4				
DESIGNED BY:	J. D. ARMSTRONG	DRAWN BY:	C. B. FOTE	DATE APPROVED:	FIELD BOOK(S):					

PLOT DATE: 8 JUNE 1995

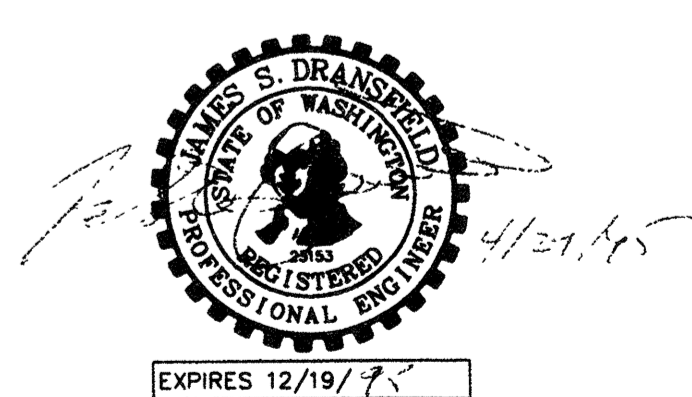
1578-E4  
8/12/95 3321





1 MANFOLD VAULT LAYOUT  
M1 SCALE: 1"=12"

AA M1 VAULT ELEVATION: EAST WALL  
NOT TO SCALE



AGRA EARTH & ENVIRONMENTAL, INC. DRAWING No. \PLAN-SET\11\07764-04\M1.DWG

PLAN CHECK	BY	DATE	REVISION	BY	DATE	NO.	REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.
							10	WASH.		9 OF 10
DESIGNED BY: MARTIN FOX					DRAWN BY: MARTIN FOX					
DATE APPROVED:					FIELD BOOK(S):					

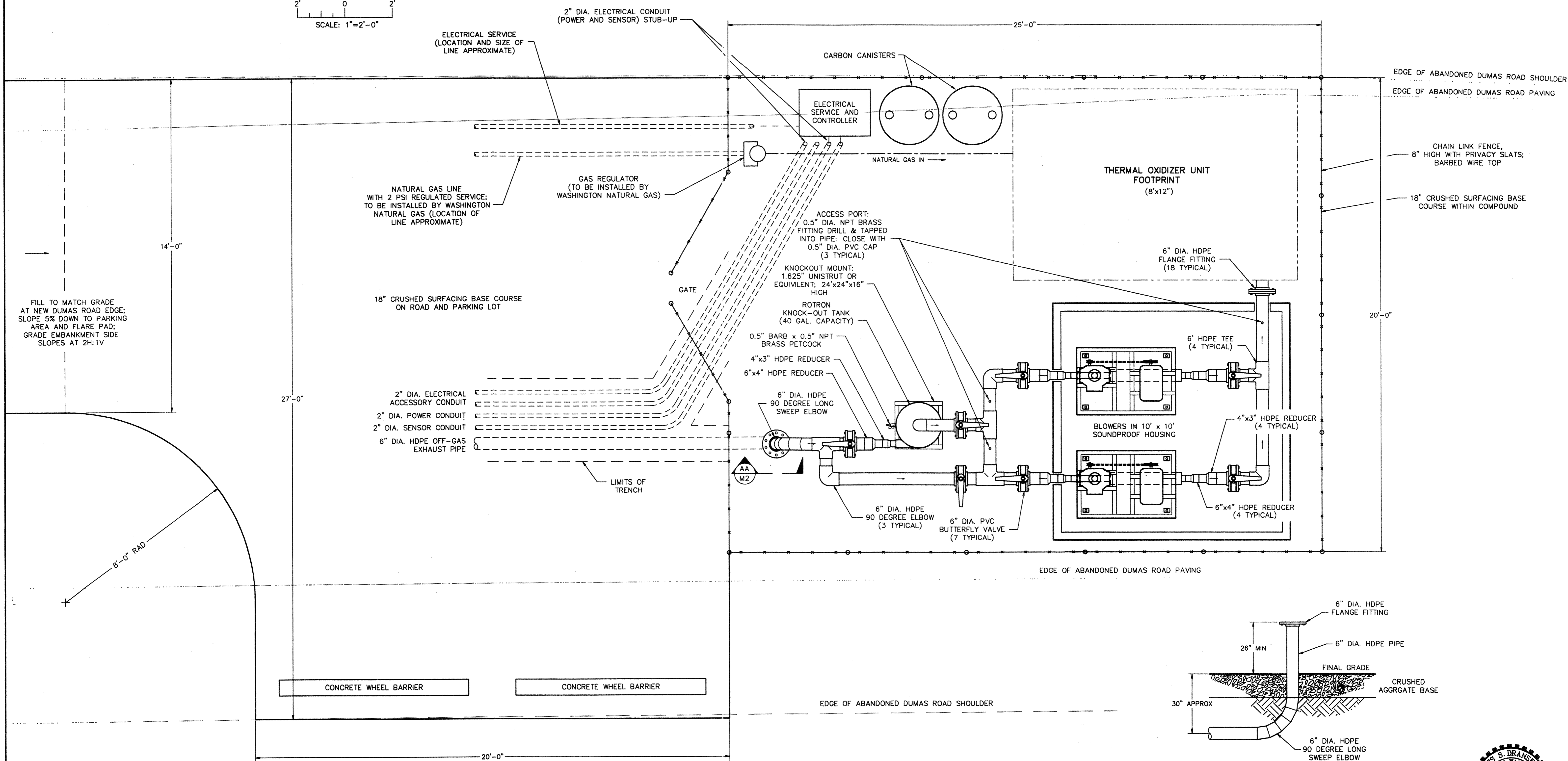
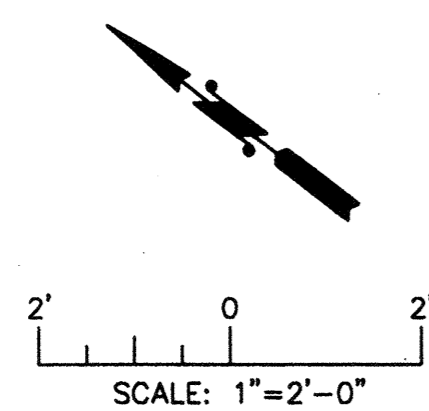
**AGRA**  
Earth & Environmental  
11335 N.E. 122nd Way, Suite 100  
Kirkland, Washington, U.S.A. 98034-6918  
Tel (206) 820-4669 Fax (206) 821-3914

**SNOHOMISH COUNTY**  
DEPARTMENT OF  
PUBLIC WORKS  
PROJECT NO. \_\_\_\_\_

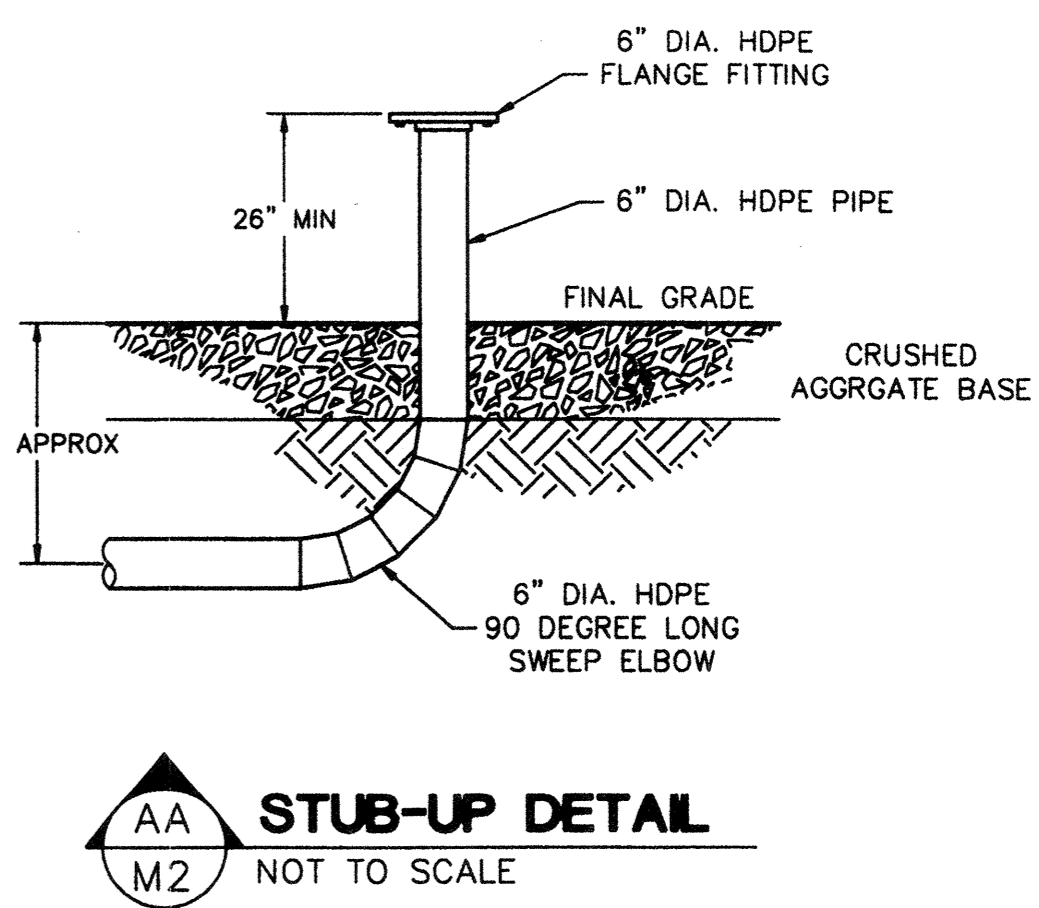
**AS-BUILT**  
128th ST. S.E. / DUMAS ROAD  
LANDFILL GAS MANAGEMENT SYSTEM  
**MANFOLD VAULT LAYOUT**

SURVEY NO. \_\_\_\_\_  
SHEET  
**M1**

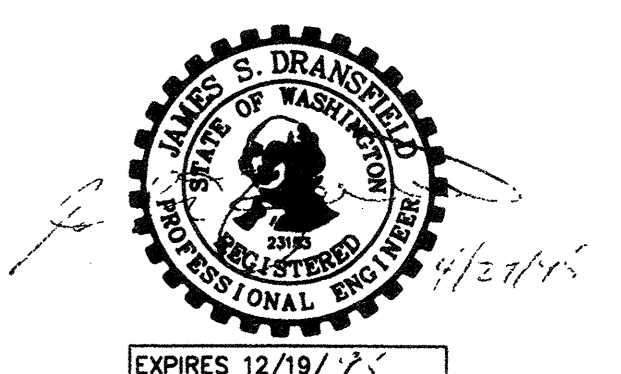




1 FLARE PAD DETAIL  
M2 NOT TO SCALE



AA M2 STUB-UP DETAIL  
NOT TO SCALE



AGRA EARTH & ENVIRONMENTAL, INC. DRAWING No. \PLAN-SET\11\07764-04\M2.DWG

PLAN CHECK	BY	DATE	REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.
			10	WASH.		10 OF 10
DESIGNED BY: MARTIN FOX			DRAWN BY: MARTIN FOX			
DATE APPROVED:			FIELD BOOK(S):			
DATE	NO.	REVISION	BY			

**AGRA**  
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11335 N.E. 122nd Way, Suite 100  
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Tel (206) 820-4669 Fax (206) 821-3914

SNOHOMISH COUNTY ENGINEER

**SNOHOMISH COUNTY**  
DEPARTMENT OF  
PUBLIC WORKS

PROJECT NO. \_\_\_\_\_

**AS-BUILT**  
128th ST. S.E. / DUMAS ROAD  
LANDFILL GAS MANAGEMENT SYSTEM  
**FLARE PAD LAYOUT**

SURVEY NO.  
SHEET  
**M2**

