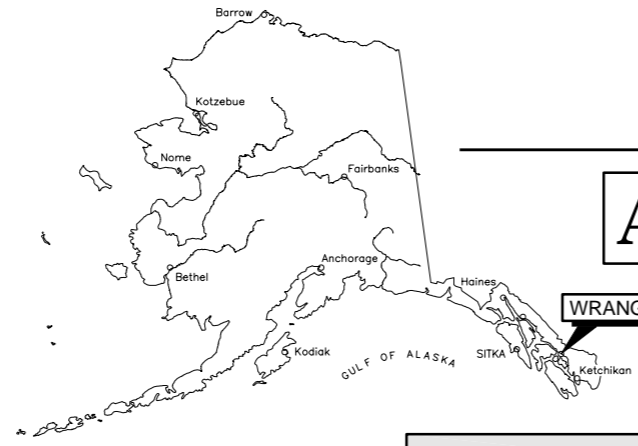


SHEET INDEX

SHEET No.	DESCRIPTION
C001	AS-BUILTS COVER SHEET AND PROJECT LOCATION MAP
C002	AS-BUILTS GENERAL NOTES, ABBREVIATIONS AND SYMBOLS
C101	AS-BUILTS GRADING & DRAINAGE PLAN
C102	AS-BUILTS LANDFILL VENT PIPE LAYOUT AND DETAILS
C200	AS-BUILTS TYPICAL SECTIONS
C201	AS-BUILTS TYPICAL SECTION
C300	AS-BUILTS CONSTRUCTION DETAILS
C301	AS-BUILTS LEACHATE COLLECTION AND PUMPING DETAILS
C302	AS-BUILTS CONSTRUCTION DETAILS
C303	AS-BUILTS LANDFILL GAS EXTRACTION WELL DETAILS
C400	AS-BUILTS LANDFILL ACCESS ROAD PROFILE

**CITY AND BOROUGH OF WRANGELL
MUNICIPAL SOLID WASTE
LANDFILL CLOSURE PLAN
CBW PROJECT No. 2009-10
WRANGELL, ALASKA**

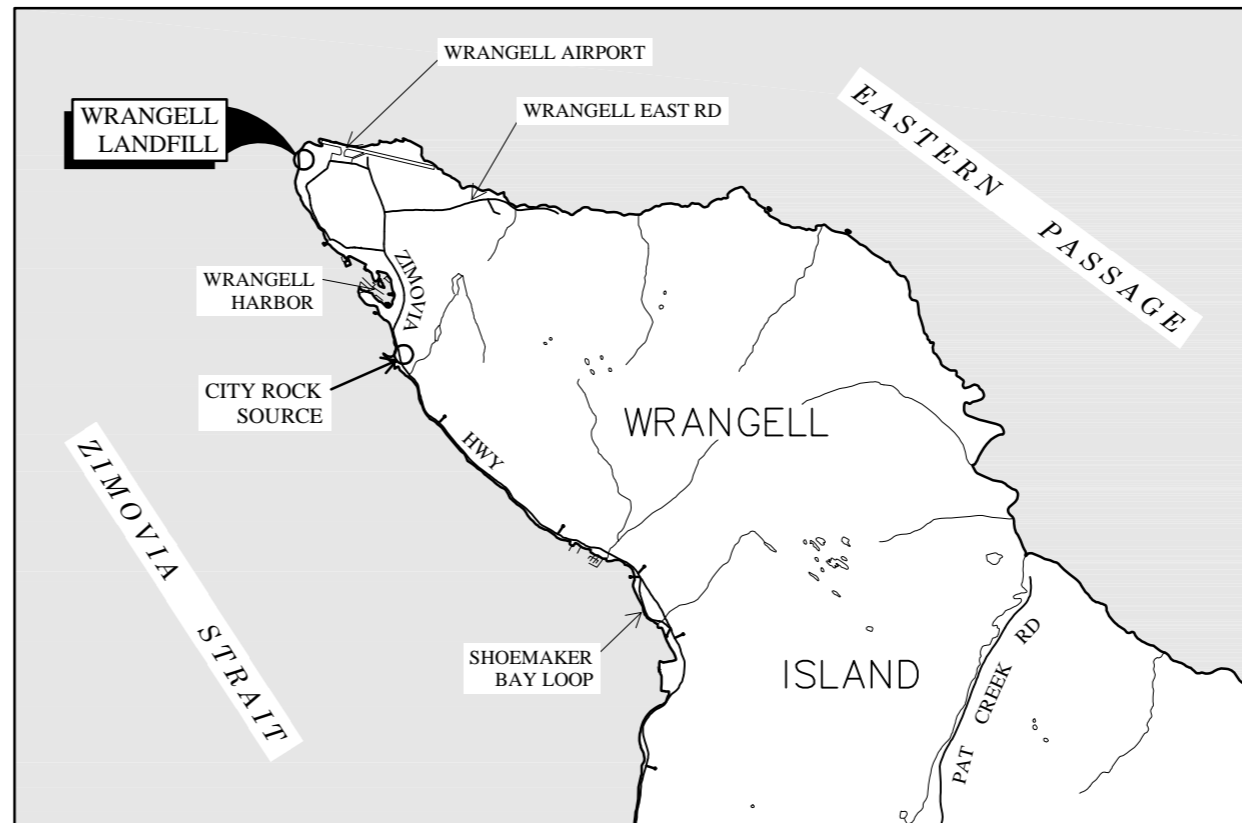


AS-BUILT DRAWINGS

AUGUST 3, 2012

CONTRACTOR: SOUTHEAST EARTHMOVERS INC.
PROJECT START DATE: APRIL 11, 2010.
SUBSTANTIAL COMPLETION DATE: JUNE 27, 2011.
PROJECT ENGINEER: AMBER AL-HADDAD, CITY AND BOROUGH OF WRANGELL.
 J. MARK PUSICH P.E., R&M ENGINEERING INC.

PROJECT AS-BUILT DRAWINGS HAVE BEEN PREPARED BY R&M ENGINEERING, INC. FROM SOUTHEAST EARTHMOVERS INC. SUBMITTED RECORD INFORMATION AND REPRESENT TO THE BEST OF OUR KNOWLEDGE THE PROJECT AS CONSTRUCTED.



PROJECT LOCATION MAP

APPROXIMATE SCALE: 1" = 1 MILE

**AS-ABUILTS
COVER SHEET AND
PROJECT LOCATION MAP**



R & M ENGINEERING, INC.
 ENGINEERS GEOLOGISTS SURVEYORS
 6205 GLACIER HIGHWAY Phone 907-780-6060
 JUNEAU, AK. 99801 Fax 907-780-4611
 rmeengineering@rmjuneau.com

CITY AND BOROUGH OF WRANGELL
 MUNICIPAL SOLID WASTE
 LANDFILL CLOSURE PLAN
 CBW PROJECT No. 2009-10
 WRANGELL, ALASKA

DATE: AUGUST 3, 2012
 R&M NO. 101303
 SHEET **C001**

I:\2010\101303\As-Built\Cover.dwg PLOT: August 03, 2012 et: 3:23pm mlmbaugh

DESIGN	JMP
DRAWN	MLL
CHECK	MAJ
APPROVED	JMP
FILE:	

No.	DATE	REVISION	BY	APRVD.

GENERAL CONSTRUCTION NOTES

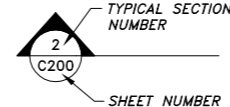
- LANDFILL RE-GRADING AND COMPACTING OPERATIONS CAN EXPECT ENCOUNTERING METAL SCRAP, WIRE ROPE, PIPE, CONSTRUCTION DEBRIS, EARTH MIXED WITH WASTE, BOULDERS, SHEET ROCK, TREE STUMPS, LOGS, ASPHALT PAVEMENT WASTE, WOOD CHIPS, MATTRESS SPRINGS, WOOD PALLETS AND OTHER LANDFILL MATERIALS.
- LANDFILL FINISH GRADES SHOWN ON THESE PLANS MAY BE REVISED AS LONG AS THE 3:1 SLOPES CAN BE MAINTAINED AND ARE APPROVED BY THE ENGINEER.
- LOCATION OF STORM DRAIN PIPES, SANITARY SEWER MANHOLES, PIPING AND PIPE LENGTHS ARE SUBJECT TO MINOR REVISIONS AS APPROVED BY THE ENGINEER.
- UNLESS OTHERWISE NOTED, ALL DISTURBED AREAS WITHIN THE PROJECT SHALL BE SEEDED BY THE HYDROSEEDING METHOD.
- LOCATIONS OF EXISTING UNDERGROUND SEWER, WATER, TELEPHONE, CABLE TELEVISION, AND POWER UTILITIES SHOWN ON THESE PLANS WERE DERIVED FROM A COMBINATION OF AS-BUILT PLANS AND FIELD LOCATES. ACTUAL LOCATIONS MAY VARY FROM THOSE SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING, PROTECTING, AND MAINTAINING THE UTILITIES THROUGHOUT THE CONSTRUCTION OF THIS PROJECT. ANY DAMAGE RESULTING TO THESE UNDERGROUND UTILITIES DURING CONSTRUCTION SHALL BE PAID FOR BY THE CONTRACTOR AND SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT. CALL 874-3904, PRIOR TO ANY EXCAVATION ACTIVITIES.
- PROPERTY LINE LOCATIONS USED IN THESE PLANS ARE DERIVED FROM RECORD PLATS AND DO NOT REPRESENT A BOUNDARY SURVEY.
- WHERE PROPOSED STORM DRAIN LINES, SANITARY SEWER LINES AND WATER LINES CROSS EXISTING OR PROPOSED DRAINAGE DITCHES, WATER, SEWER OR STORM PIPES, THE CONTRACTOR SHALL VERIFY THE LOCATIONS AND INSTALL RIGID BOARD INSULATION WHERE REQUIRED.
- PROVIDE KNOCKOUTS IN MANHOLE STRUCTURES FOR ALL PIPES SHOWN ON THE PLANS.
- ONLY HORIZONTAL ELBOW FITTINGS (BENDS) ARE SHOWN ON THE PLANS. ADDITIONAL FITTINGS WILL BE REQUIRED FOR VERTICAL DEFLECTIONS NEAR CONNECTION TO EXISTING PIPES AND AT OTHER LOCATIONS REQUIRING GRADE CHANGES TO AVOID CONFLICTS.
- APPLY "CONCRETE INTERNATIONAL CORPORATION" ASHFORD FORMULA, OR APPROVED EQUAL, TO ALL NEWLY EXPOSED CONCRETE SURFACES PER MANUFACTURERS RECOMMENDATIONS.
- THE CONTRACTOR SHALL REFERENCE ALL EXISTING PROPERTY CORNER AND OTHER MONUMENTS PRIOR TO CONSTRUCTION THAT WILL BE DISTURBED DURING HIS WORK, AND REMONUMENT AFTER CONSTRUCTION OPERATIONS. ALL WORK SHALL BE DONE BY, OR UNDER THE DIRECT SUPERVISION OF, AN ALASKA REGISTERED LAND SURVEYOR. ALL EXISTING MONUMENTS ARE NOT NECESSARILY SHOWN ON THE PLANS.
- THE PLAN SHEETS DO NOT NECESSARILY SHOW ALL TREES AND BRUSH THAT WILL BE ENCOUNTERED DURING CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL REMOVE AND DISPOSE (AT AN APPROVED SITE) OF ALL TREES AND BRUSH AS NECESSARY FOR CONSTRUCTION AND AS DIRECTED BY THE ENGINEER.
- THE CLEARING AND GRUBBING LIMITS SHALL BE STAKED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO ANY CLEARING, GRUBBING OR EXCAVATION ACTIVITIES TAKING PLACE. CLEARING AND GRUBBING LIMITS FOR ALL ROADS AND DITCHES SHALL BE A MAXIMUM OF 5 FEET FROM SLOPE LIMITS OR PROPERTY LINES IF APPLICABLE, WHICHEVER IS LESS.
- "JUMPING JACK", OR SIMILAR TYPE COMPACTORS SHALL BE USED FOR COMPACTION WITHIN 18 INCHES OF ALL MANHOLES WITHIN THE ACCESS ROADWAY.
- THE CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL DEVICES DURING CONSTRUCTION AS INDICATED ON THE CONTRACTOR'S APPROVED SWPPP.
- THERE ARE BOTH "FEET AND DECIMALS THEREOF" AND "FEET AND INCHES" CALLED FOR ON THESE PLANS. CONTRACTOR TO USE CAUTION WHEN REVIEWING EACH CALL.

ABBREVIATIONS

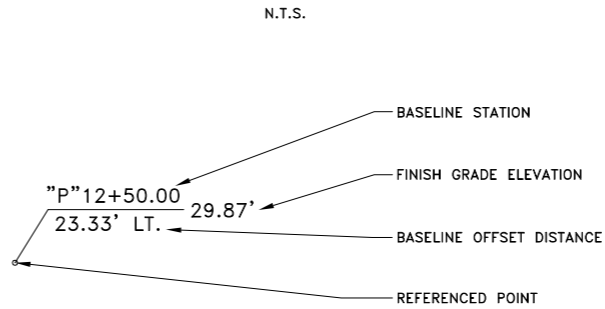
- | | | | |
|----------|--|----------|---------------------------------------|
| A.P. | ANGLE POINT | M.J. | MECHANICAL JOINT |
| APPROX. | APPROXIMATE | M.T.E. | MATCH TO EXISTING |
| B.C. | BEGIN CURVE | N= | NORTHING |
| BLDG. | BUILDING | N.F.S. | NON-FROST SUSCEPTIBLE |
| B.O.E. | BOTTOM OF EXCAVATION | N.I.C. | NOT IN CONTRACT |
| B.O.F. | BOTTOM OF FOOTING | N.T.S. | NOT TO SCALE |
| B.O.P. | BEGINNING OF PROJECT | N.V.C. | NO VERTICAL CURVE |
| C.I. | CAST IRON | O.C. | ON CENTER |
| C.B. | CATCH BASIN | O.D. | OUTSIDE DIAMETER |
| C.B.W. | CITY AND BOROUGH OF WRANGELL | P.C. | POINT OF CURVATURE |
| CL | CENTERLINE | P.C.C. | POINT OF COMPOUND CURVE |
| CLR | CLEAR | P.I. | POINT OF INTERSECTION |
| C.M.P. | CORRUGATED METAL PIPE | P/L | PROPERTY LINE |
| CONC. | CONCRETE | P.O.C. | POINT ON CURVE |
| CONT. | CONTINUOUS | P.R.C. | POINT OF REVERSE CURVE |
| C.P.P. | CORRUGATED POLYETHYLENE PIPE | P.T. | POINT OF TANGENCY |
| C.T.E. | CONNECT TO EXISTING | P.V.C. | POLYVINYL CHLORIDE |
| CTRL | CONTROL | R.D. | ROOF DRAIN |
| CU | COPPER | RT. | RIGHT |
| DH | DRILL HOLE | R.O.W. | RIGHT-OF-WAY |
| DIA. | DIAMETER | S.D.M.H. | STORM DRAIN MANHOLE |
| DIAG. | DIAGONAL | SDWK | SIDEWALK |
| D.I.P. | DUCTILE IRON PIPE | S.S. | SANITARY SEWER |
| DOT/PF | STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES | S.S.C.O. | SANITARY SEWER CLEANOUT |
| E= | EASTING | S.S.M.H. | SANITARY SEWER MANHOLE |
| E.C. | END CURVE | STA. | STATION |
| EL | ELEVATION | STD. | STANDARD |
| E.O.P. | END OF PROJECT | SWPPP | STORM WATER POLLUTION PREVENTION PLAN |
| EQ. | EQUATION | T.B.M. | TEMPORARY BENCH MARK |
| EXP. | EXPANSION | T.B.O.C. | TOP BACK OF CURB |
| EXIST. | EXISTING | T.O.B. | TOP OF BANK |
| F.D. | FOUNDATION DRAIN | T.O.P. | TOP OF PIPE |
| F.F. | FINISH FLOOR | TP | TEST PIT |
| F.G. | FINISH GRADE | TYP. | TYPICAL |
| F.H. | FIRE HYDRANT | U.D. | UNDERDRAIN |
| F.M. | FORCE MAIN | U.E. | UNDERGROUND ELECTRICAL |
| GCL | GEOSYNTHETIC CLAY LINER | U.S.T. | UNDERGROUND STORAGE TANK |
| G.P. | GRADE POINT | VERT. | VERTICAL |
| G.V. | GATE VALVE | VPC | VERTICAL POINT OF CURVATURE |
| H.D.P.E. | HIGH DENSITY POLYETHYLENE | VPI | VERTICAL POINT OF INTERSECTION |
| HOR. | HORIZONTAL | VPT | VERTICAL POINT OF TANGENCY |
| H.P. | HIGH POINT | W/ | WITH |
| I.E. | INVERT ELEVATION | | |
| LT. | LEFT | | |
| MAX. | MAXIMUM | | |
| MIN. | MINIMUM | | |

SYMBOLS

- | EXISTING | PROPOSED | |
|----------|------------|--------------------------|
| --- | --- | PROPERTY / BOUNDARY LINE |
| --- | --- | PROJECT BASELINE |
| ⊙ | ⊙ SSMH-1 | SANITARY SEWER MANHOLE |
| — (— | — (— SP-1 | SANITARY SEWER LINE |
| --- | — FM | LEACHATE FORCE MAIN |
| --- | — (P-2) | STORM DRAIN PIPE |
| --- | --- | WATER LINE |
| --- | --- | WATER VALVE |
| ⊙ | ⊙ | FIRE HYDRANT W/ BOLLARDS |
| ⊙ | ⊙ | LIGHT POLE |
| — E — | — E — | ELECTRIC LINE |
| ⊞ | ⊞ | ELECTRIC PEDESTAL |
| ⊞ | ⊞ | ELECTRIC TRANSFORMER |
| — P — | — P — | TELEPHONE LINE |
| ⊞ | ⊞ | TELEPHONE PEDESTAL |
| — C — | — C — | CABLE TV LINE |
| ⊞ | ⊞ | CABLE TV PEDESTAL |
| --- | --- | TOP OF BANK/SHOULDER |
| --- | --- | TOE OF FILL SLOPE |
| --- | --- | DRAINAGE DITCH |
| --- | --- | CONTOURS |
| --- | --- | TREE LINE |
| ⊙ | ⊙ | SIGN |
| --- | --- | DRAINAGE FLOW INDICATOR |
| --- | --- | CONCRETE SURFACE |
| --- | --- | SILT FENCE |
| --- | --- | GRADING POINT |
| --- | --- | STRUCTURE |
| --- | --- | LEACHATE PUMP STATION |



REFERENCE BUBBLE EXPLANATION



FINISH GRADE EXPLANATION

N.T.S.

CONTAMINATED SOIL STOCKPILE GRADATIONS				
SIEVE SIZE	SP 5 % PASSING	SP 6 % PASSING	SPUR ROAD % PASSING	SP 7 % PASSING
3"	100	100	100	100
2"	100	95	100	100
1 1/2"	93	92	94	99
1"	92	87	93	95
3/4"	89	85	91	93
1/2"	86	80	87	88
3/8"	83	77	85	83
No. 4	75	70	79	75
No. 8	67	69	71	67
No. 10	65	60	69	65
No. 16	57	54	62	55
No. 30	46	45	52	41
No. 40	40	41	46	34
No. 50	33	37	40	28
No. 100	23	30	27	21
No. 200	15.0	22.1	17.7	14.6

NOTE: GRADATION INFORMATION PROVIDED IS BASED ON STOCKPILE SAMPLES COLLECTED BY THE CITY AND BOROUGH OF WRANGELL AND TESTED BY R&M ENGINEERING INC.

PROJECT AS-BUILT DRAWINGS HAVE BEEN PREPARED BY R&M ENGINEERING, INC. FROM SOUTHEAST EARTHMOVERS INC. SUBMITTED RECORD INFORMATION AND REPRESENT TO THE BEST OF OUR KNOWLEDGE THE PROJECT AS CONSTRUCTED.

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DESIGN	JMP			
DRAWN	MLL			
CHECK	MAJ			
APPROVED	JMP			
FILE:				

No.	DATE	REVISION	BY	APRV.

AS-BUILTS
GENERAL NOTES,
ABBREVIATIONS AND
SYMBOLS

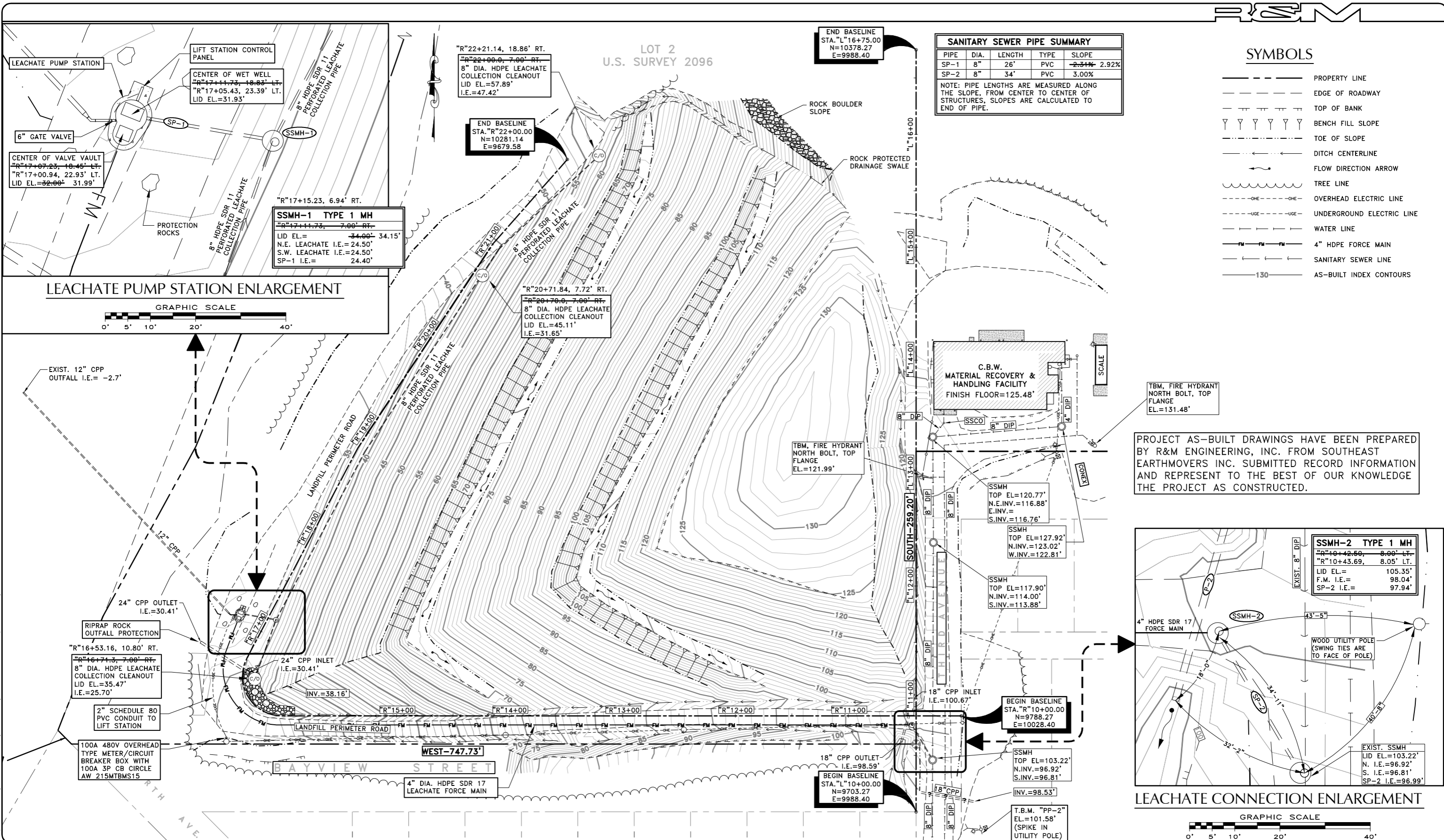


R & M ENGINEERING, INC.
ENGINEERS GEOLOGISTS SURVEYORS

6205 GLACIER HIGHWAY Phone 907-780-6060
JUNEAU, AK. 99801 Fax 907-780-4611
rmengineering@rmjuneau.com

CITY AND BOROUGH OF WRANGELL
MUNICIPAL SOLID WASTE
LANDFILL CLOSURE PLAN
CBW PROJECT No. 2009-10
WRANGELL, ALASKA

DATE: AUGUST 3, 2012
R&M NO. 101303
SHEET **C002**



SANITARY SEWER PIPE SUMMARY

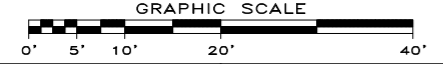
PIPE	DIA.	LENGTH	TYPE	SLOPE
SP-1	8"	26'	PVC	2.34% 2.92%
SP-2	8"	34'	PVC	3.00%

NOTE: PIPE LENGTHS ARE MEASURED ALONG THE SLOPE, FROM CENTER TO CENTER OF STRUCTURES. SLOPES ARE CALCULATED TO END OF PIPE.

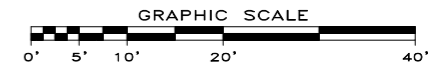
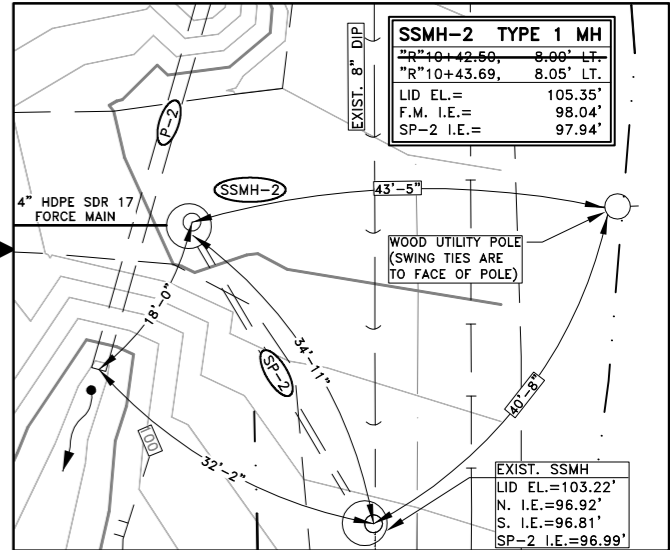
SYMBOLS

- PROPERTY LINE
- - - - - EDGE OF ROADWAY
- TOP OF BANK
- Y Y Y Y Y BENCH FILL SLOPE
- - - - - TOE OF SLOPE
- DITCH CENTERLINE
- FLOW DIRECTION ARROW
- TREE LINE
- OVERHEAD ELECTRIC LINE
- UNDERGROUND ELECTRIC LINE
- WATER LINE
- 4" HDPE FORCE MAIN
- SANITARY SEWER LINE
- 130 AS-BUILT INDEX CONTOURS

LEACHATE PUMP STATION ENLARGEMENT



PROJECT AS-BUILT DRAWINGS HAVE BEEN PREPARED BY R&M ENGINEERING, INC. FROM SOUTHEAST EARTHMOVERS INC. SUBMITTED RECORD INFORMATION AND REPRESENT TO THE BEST OF OUR KNOWLEDGE THE PROJECT AS CONSTRUCTED.



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DESIGN	JMP
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CHECK	MAJ
APPROVED	JMP
FILE:	

No.	DATE	REVISION	BY	APRVD.

AS-BUILTS
GRADING & DRAINAGE PLAN

GRAPHIC SCALE

AS-BUILT CONTOUR INTERVAL = 1'



R & M ENGINEERING, INC.
 ENGINEERS GEOLOGISTS SURVEYORS

6205 GLACIER HIGHWAY Phone 907-780-6060
 JUNEAU, AK. 99801 Fax 907-780-4611
 rmengineering@rmjuneau.com

CITY AND BOROUGH OF WRANGELL
 MUNICIPAL SOLID WASTE
 LANDFILL CLOSURE PLAN
 CBW PROJECT No. 2009-10
 WRANGELL, ALASKA

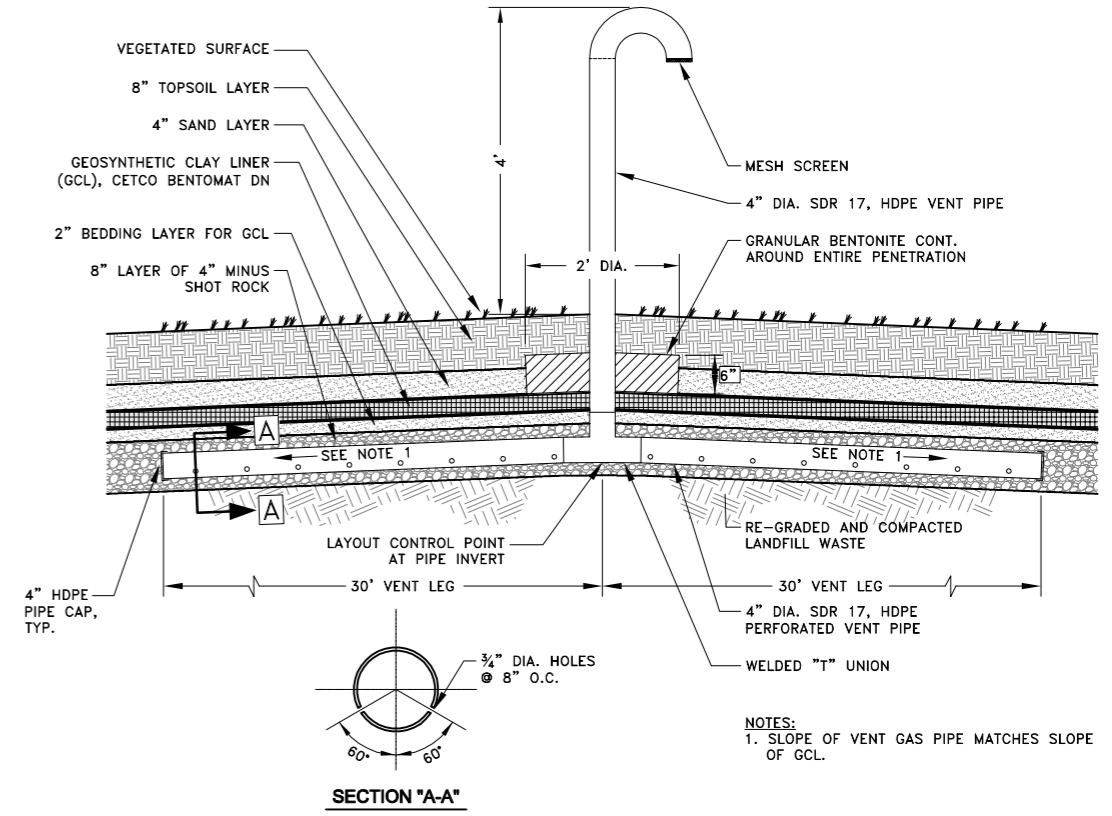
DATE: AUGUST 3, 2012
 R&M NO. 101303

SHEET **C101**

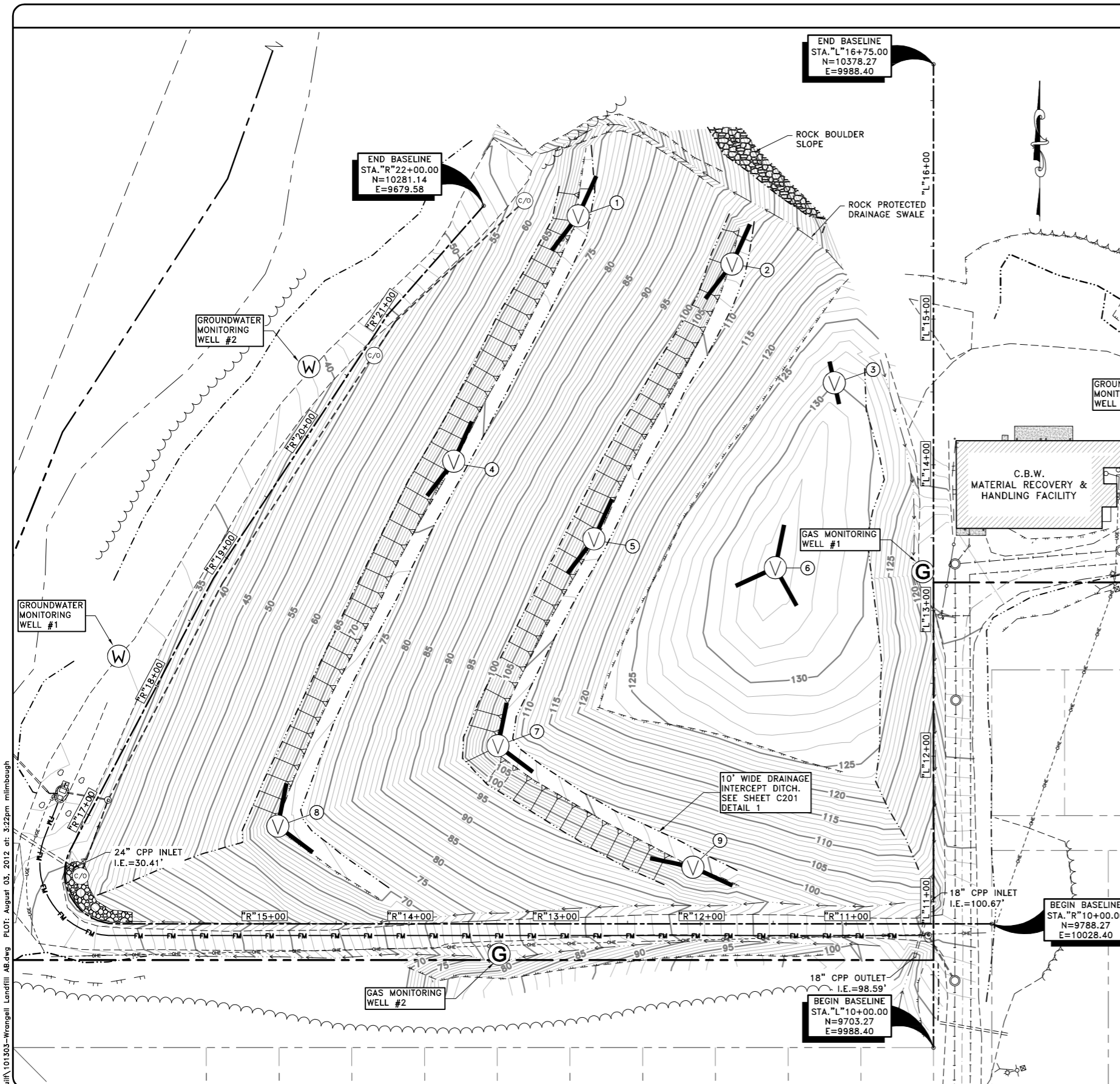
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POINT	STATION	OFFSET		ELEVATION		REMARKS	VENT CONFIGURATION
		LT.	RT.	LT.	RT.		
1	"L"15+65.73	244.35'	243.93'	-67.31'	71.54'	LANDFILL DRAIN VENT	DOUBLE LEG VENT
2	"L"15+36.26	138.38'	138.38'	+92.60'	107.15'	LANDFILL DRAIN VENT	DOUBLE LEG VENT
3	"L"14+49.37	54.15'	68.12'	+38.97'	129.93'	LANDFILL DRAIN VENT	SINGLE LEG VENT
4	"L"14+01.35	329.13'	329.36'	-72.12'	76.04'	LANDFILL DRAIN VENT	DOUBLE LEG VENT
5	"L"13+49.22	232.65'	233.14'	+98.32'	112.33'	LANDFILL DRAIN VENT	DOUBLE LEG VENT
6	"L"12+77.56	115.60'	108.59'	+52.50'	134.10'	LANDFILL DRAIN VENT	TRIPLE LEG VENT
7	"L"12+06.59	299.56'	299.00'	+65.03'	109.17'	LANDFILL DRAIN VENT	DOUBLE LEG VENT
8	"L"11+50.39	451.67'	450.13'	-66.64'	72.87'	LANDFILL DRAIN VENT	DOUBLE LEG VENT
9	"L"11+27.49	168.30'	165.21'	+91.00'	101.28'	LANDFILL DRAIN VENT	DOUBLE LEG VENT

- SYMBOLS**
- GAS COLLECTION VENT PIPE LEG
 - GAS MONITORING WELL LOCATION
 - GROUNDWATER MONITORING WELL LOCATION
 - GAS VENT
 - LEACHATE COLLECTION CLEANOUT



1 LANDFILL GAS COLLECTION AND VENT DETAIL
N.T.S.



DESIGN	JMP
DRAWN	MLL
CHECK	MAJ
APPROVED	JMP
FILE:	

No.	DATE	REVISION	BY	APRVD.

AS-BUILTS
LANDFILL VENT PIPE LAYOUT AND DETAILS
 GRAPHIC SCALE
 0' 20' 40' 80' 160'
 AS-BUILT CONTOUR INTERVAL = 1'



R & M ENGINEERING, INC.
 ENGINEERS GEOLOGISTS SURVEYORS
 6205 GLACIER HIGHWAY Phone 907-780-6060
 JUNEAU, AK. 99801 Fax 907-780-4611
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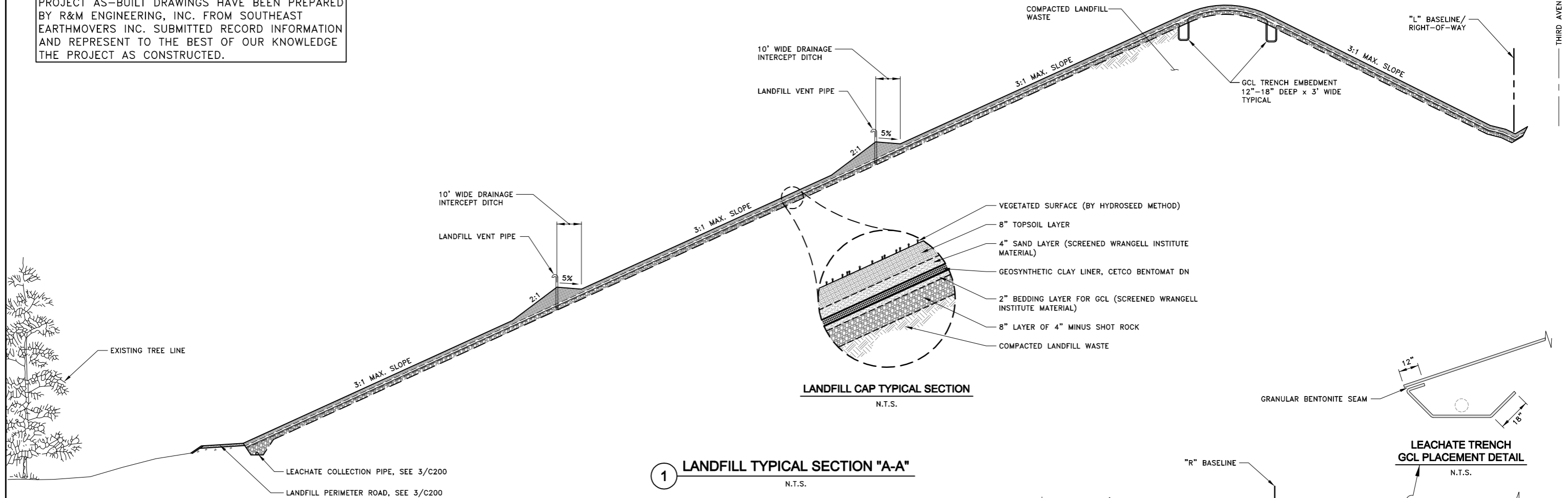
CITY AND BOROUGH OF WRANGELL
 MUNICIPAL SOLID WASTE
 LANDFILL CLOSURE PLAN
 CBW PROJECT No. 2009-10
 WRANGELL, ALASKA

DATE: AUGUST 3, 2012
 R&M NO. 101303
 SHEET **C102**

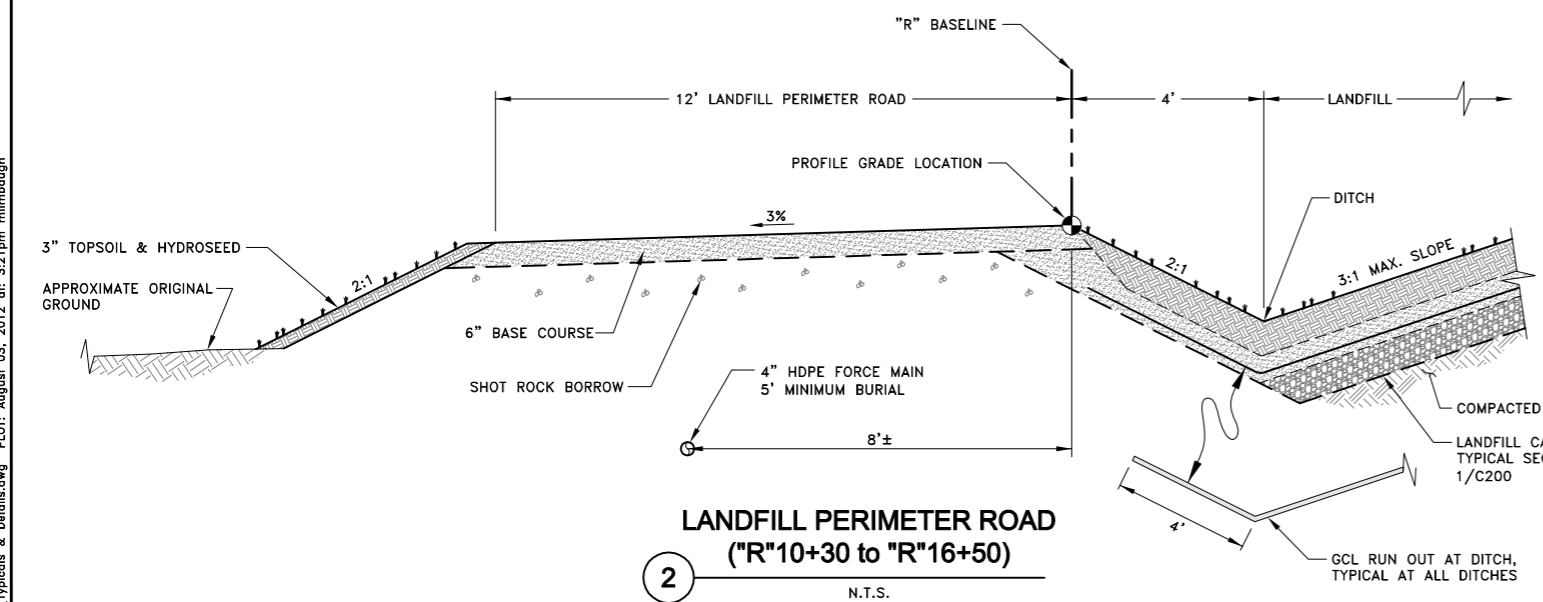
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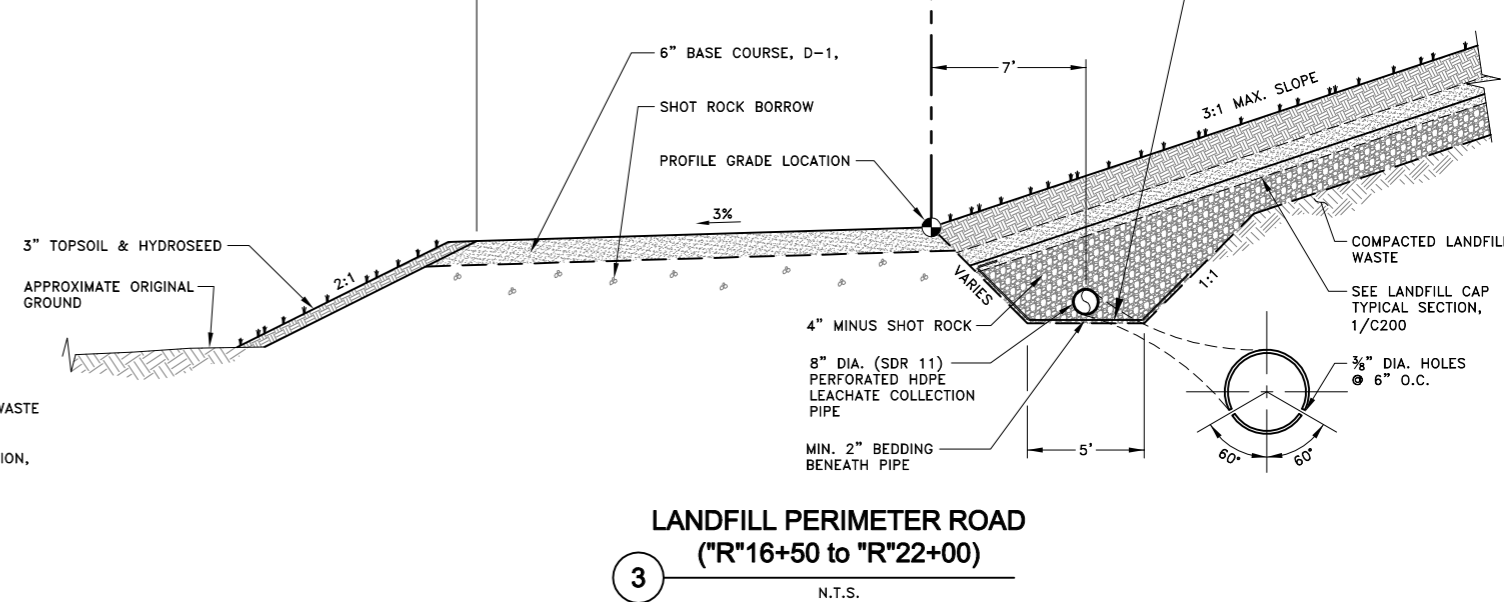
THIRD AVENUE



1 LANDFILL TYPICAL SECTION "A-A" N.T.S.



2 LANDFILL PERIMETER ROAD ("R"10+30 to "R"16+50) N.T.S.



3 LANDFILL PERIMETER ROAD ("R"16+50 to "R"22+00) N.T.S.

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CHECK	MAJ
APPROVED	JMP
FILE:	

No.	DATE	REVISION	BY	APRVD.

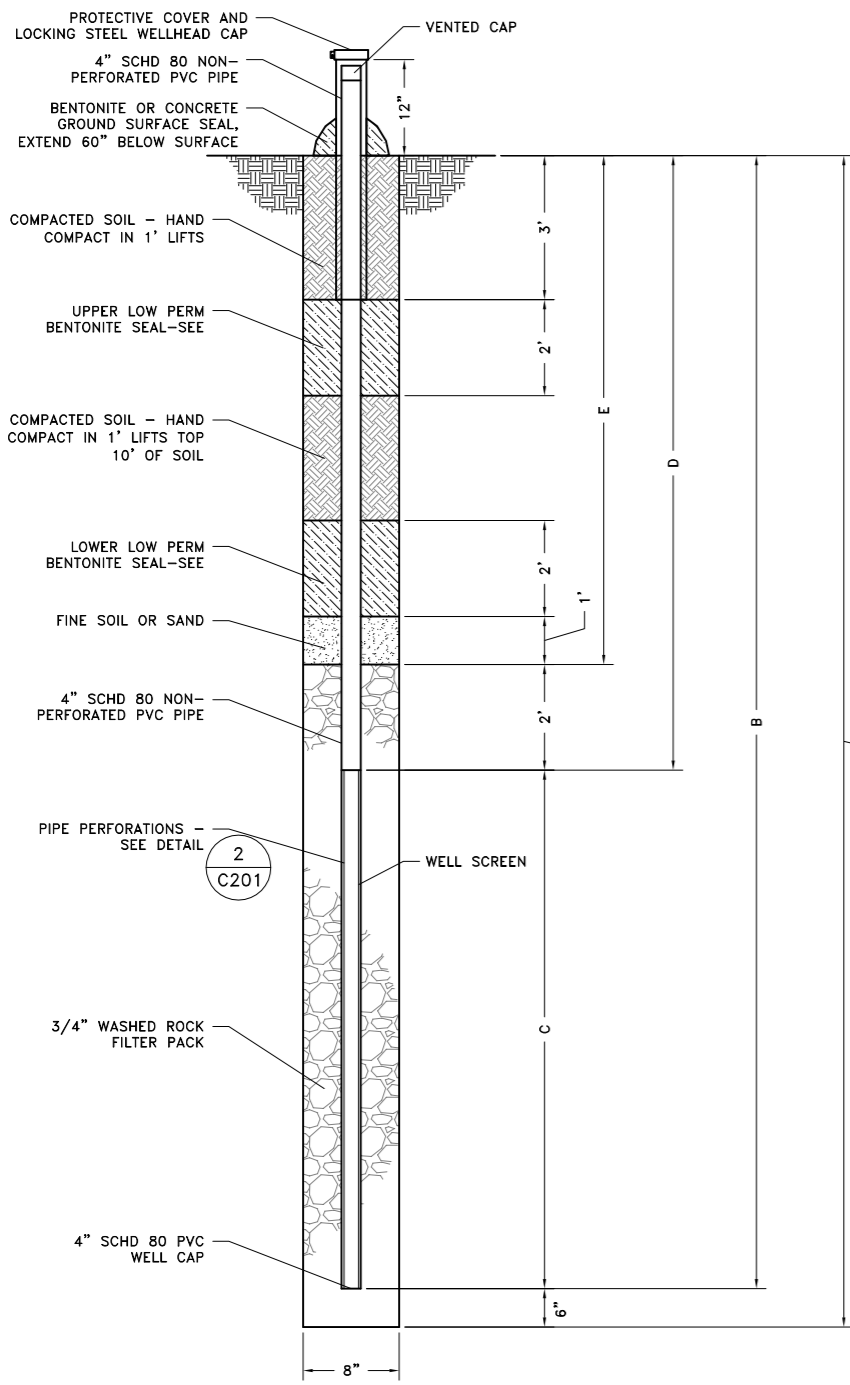
AS-BUILTS
TYPICAL SECTIONS



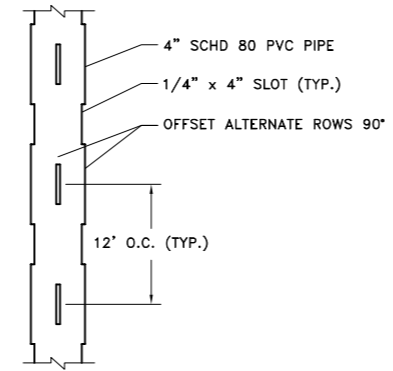
R & M ENGINEERING, INC.
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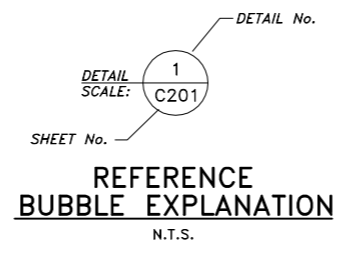
DATE:	AUGUST 3, 2012
R&M NO.	101303
SHEET	C200



1 GROUNDWATER MONITORING WELL
SCALE: NONE

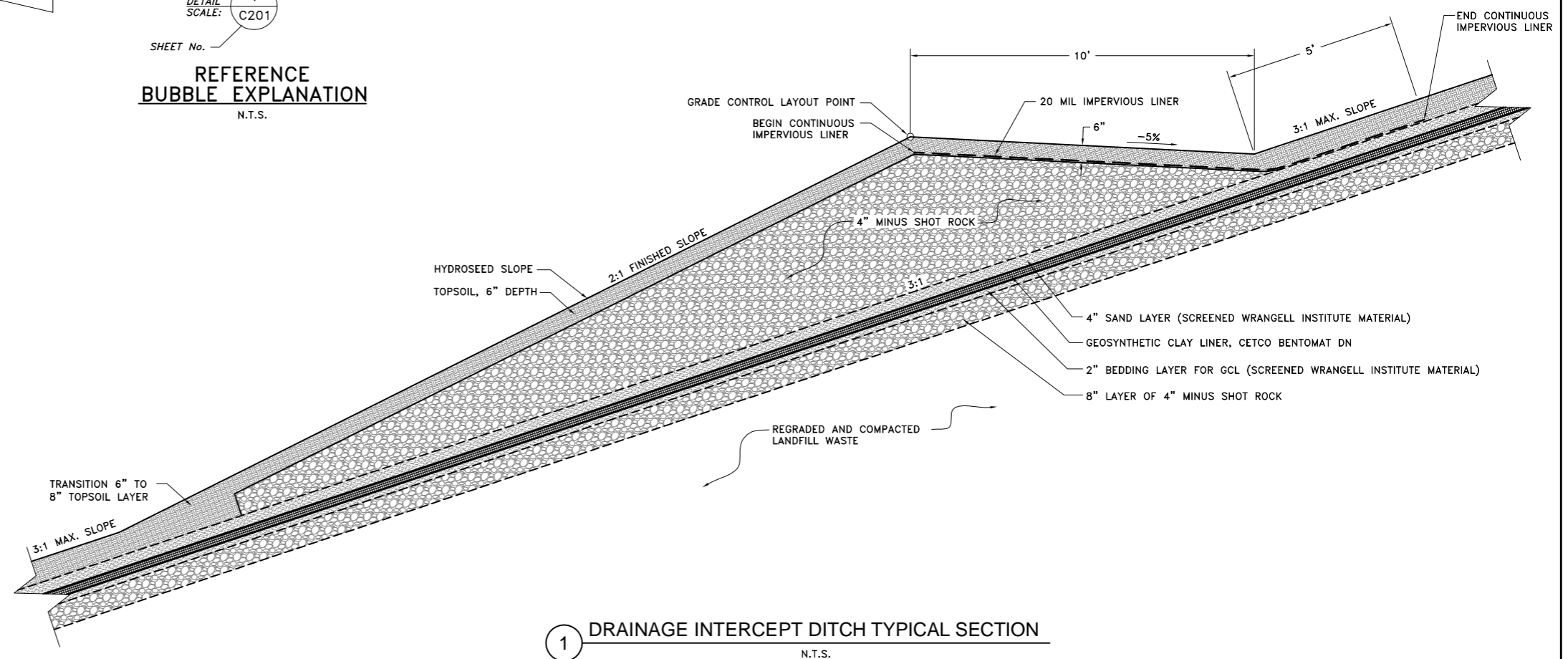


2 PIPE PERFORATIONS
SCALE: NONE



CITY AND BOROUGH OF WRANGELL LANDFILL GROUNDWATER MONITORING WELL TABLE									
WELL NUMBER	NORTHING (FT)	EASTING (FT)	APPROXIMATE SURFACE ELEVATION (FT)	WELL BOTTOM ELEVATION (FT)	BORE DEPTH A (FT)	DEPTH TO BOTTOM OF WELL PIPE B (FT)	LENGTH OF WELL SCREEN C (FT)	DEPTH TO TOP OF WELL SCREEN D (FT)	DEPTH TO TOP OF ROCK PACK E (FT)
GWMW-1	9972.0	9429.0	31.89	14.89	18	17	10	7	5.5
GWMW-2	10170.7	9559.7	38.66	21.66	17	17	10	7	5.5
GWMW-3	10113.5	10183.9	128.56	103.56	25	25	10	15	10

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1 DRAINAGE INTERCEPT DITCH TYPICAL SECTION
N.T.S.

I:\2010\101303\As-Built\DRAINAGE INTERCEPT DITCH DETAIL.dwg PLOT: August 03, 2012 at: 5:23pm mlmborough

DESIGN	JMP
DRAWN	MLL
CHECK	MAJ
APPROVED	JMP
FILE:	

No.	DATE	REVISION	BY	APRVD.

AS-BUILTS
TYPICAL SECTION

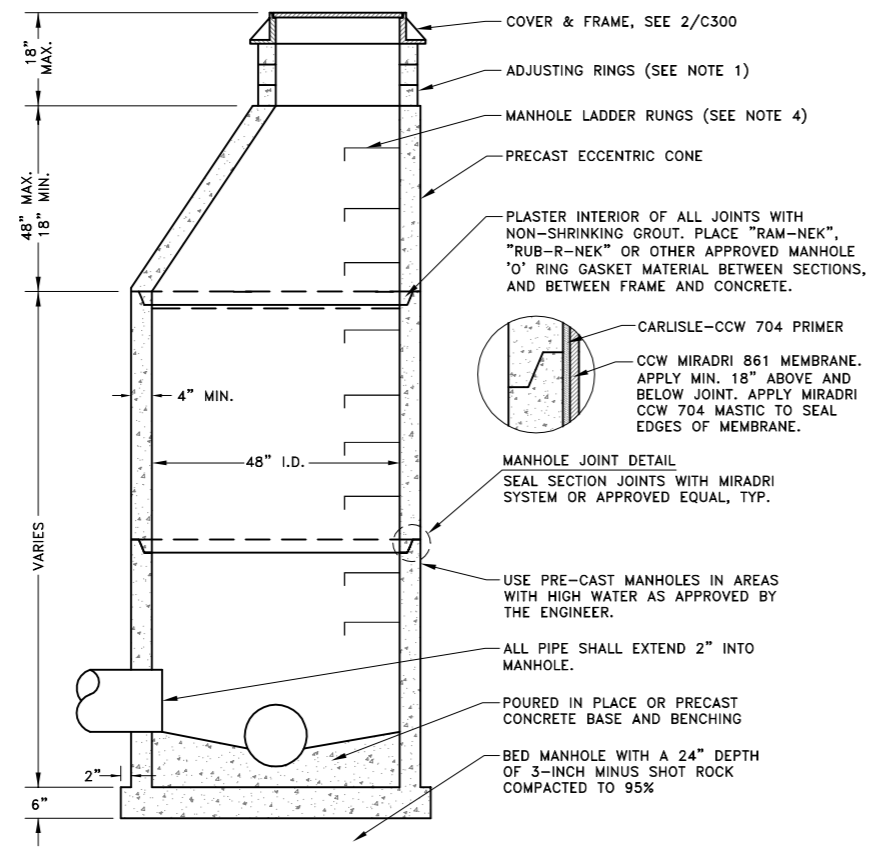


R & M ENGINEERING, INC.
ENGINEERS GEOLOGISTS SURVEYORS
6205 GLACIER HIGHWAY Phone 907-780-6060
JUNEAU, AK. 99801 Fax 907-780-4611
rmengineering@rmjuneau.com

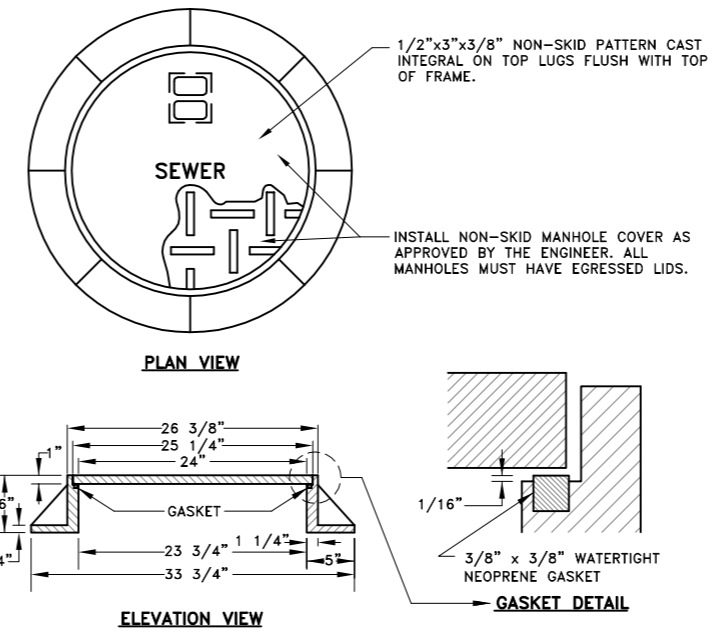
CITY AND BOROUGH OF WRANGELL
MUNICIPAL SOLID WASTE
LANDFILL CLOSURE PLAN
CBW PROJECT No. 2009-10
WRANGELL, ALASKA

DATE:	AUGUST 3, 2012
R&M NO.	101303
SHEET	C201

- NOTES:**
1. USE NO MORE THAN ONE 4" ADJUSTING RING ON NEW CONSTRUCTION ON UNPAVED ROADS, AND NO MORE THAN THREE 4" RINGS ON RECONSTRUCTIONS.
 2. REFER TO A.S.T.M. C-478 FOR DESIGN REQUIREMENTS AND C-478-69 FOR MINIMUM STEEL FOR BARREL. FIRST BARREL SECTION SHALL BE IMBEDDED IN BASE. BLOCK OUTS SHALL BE FORMED.
 3. IF MANHOLE IS WITHIN A ROADWAY, COMPACTION TESTS MUST BE TAKEN ON BACKFILL EVERY 3'. DENSITY SHALL BE 95% OF MAXIMUM PROCTOR DENSITY.
 4. RUNGS TO BE PLACED 12" O.C. ON UNOBSTRUCTED SIDE OF MANHOLE. LAST RUNG SHALL BE 18" MAX. FROM BOTTOM OF MANHOLE AND TOP RUNG SHALL BE 6" MAX. FROM TOP OF CONE. IF UNOBSTRUCTED SIDE NOT AVAILABLE, LAST RUNG TO BE PLACED 6" OVER SMALLEST PIPE. RUNGS SHALL BE POLYETHYLENE 14" LADDER STEPS.

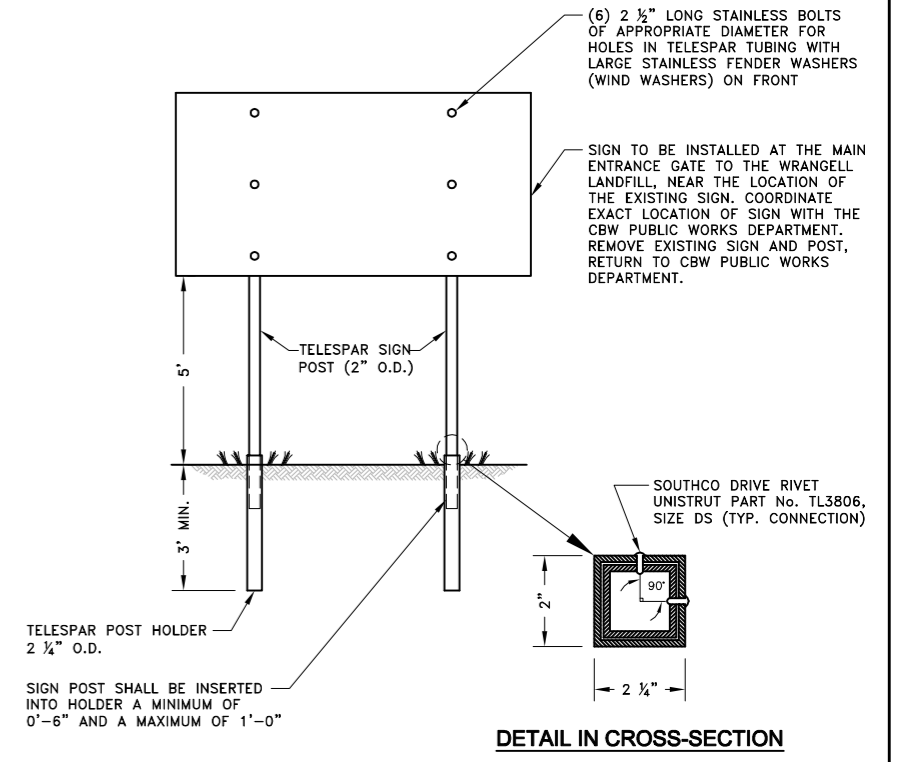


1 SANITARY SEWER MANHOLE DETAIL
N.T.S.



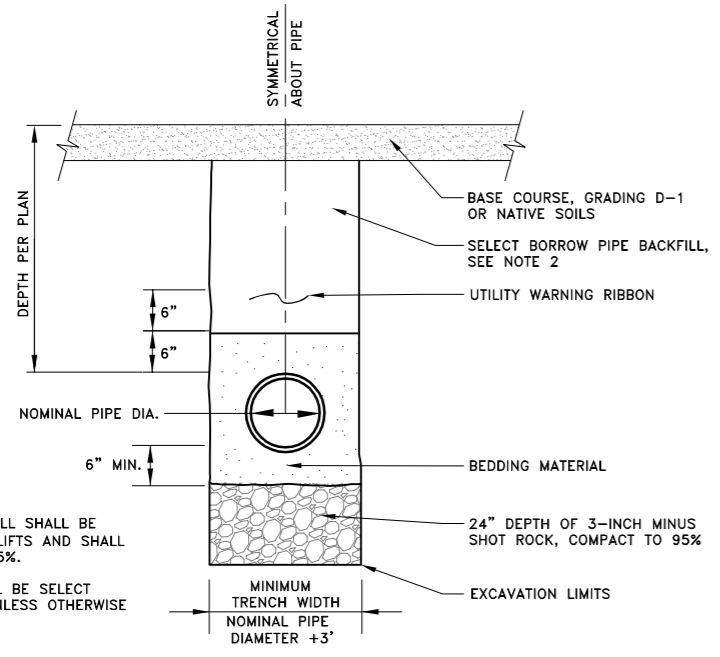
- NOTES:**
1. FRAME MUST BE MACHINED TO FIT WATERTIGHT NEOPRENE GASKET.
 2. COVER SHALL BE WATER TIGHT WITH NO HOLES, SHALL HAVE THE WORD "SEWER" CAST IN AND SHALL BE PROVIDED WITH AN INTEGRAL POCKET LIFT HANDLE.
 3. FRAME AND COVER DIMENSIONS SHALL BE IN ACCORDANCE WITH OLYMPIC CONSTRUCTION CASTINGS No. MH30A WITH EGRESSED LID, OR APPROVED EQUAL.
 4. FRAME AND GRATE SHALL BE DUCTILE IRON.
 5. FRAME AND GRATE SHALL BE OF A TYPE THAT WILL NOT CREATE A HAZARD FOR BICYCLE TRAFFIC.

2 SANITARY SEWER MANHOLE COVER & FRAME
N.T.S.

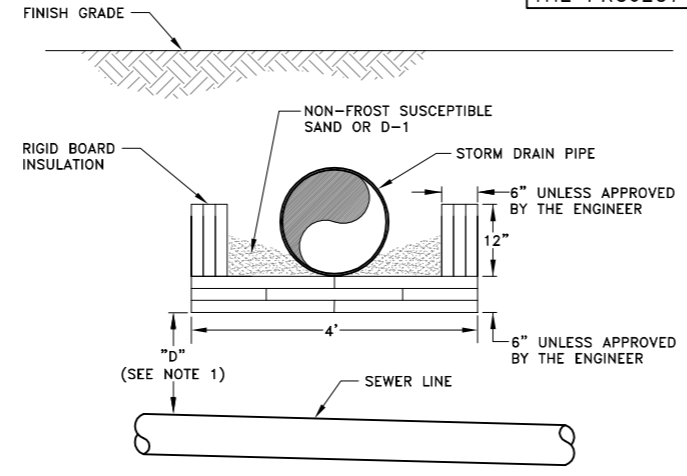


3 SIGN MOUNTING AND INSTALLATION DETAIL
N.T.S.

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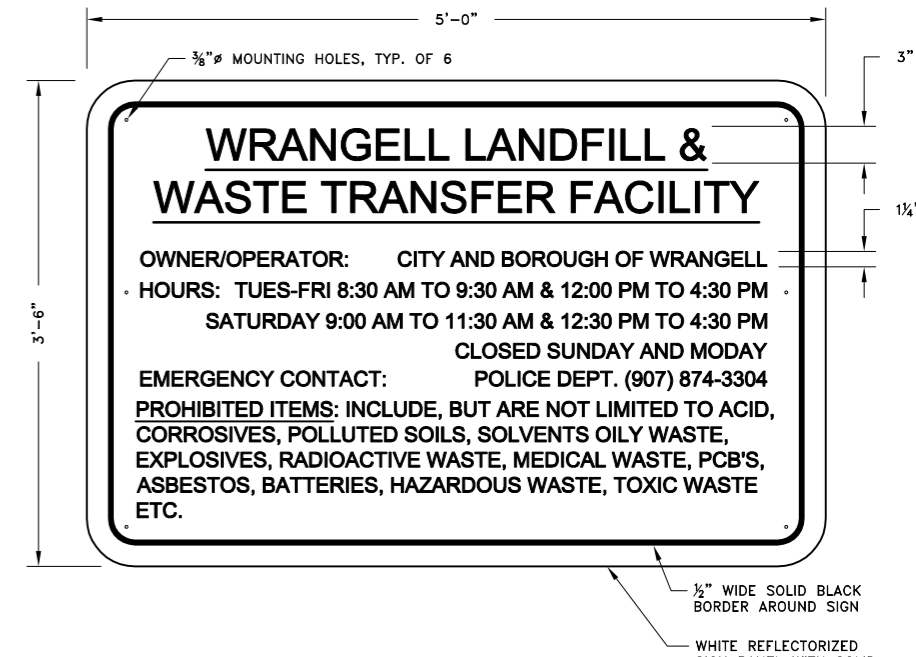


4 PIPE TRENCH DETAIL
N.T.S.



5 RIGID INSULATION DETAIL
N.T.S.

- NOTES:**
1. INSTALL INSULATION AS SHOWN WHEN "D" IS LESS THAN 5'-0" FOR WATER PIPE OR 3'-8" FOR SEWER PIPE.
 2. INSULATION SHALL CONFORM TO SECTION 02607 OF THE TECHNICAL SPECIFICATIONS.
 3. PIPE INSULATION SHALL BE 8'-0" IN LENGTH, CENTERED OVER EXISTING WATER OR SEWER PIPE.
 4. PIPE INSULATION WITH R-FACTOR EQUAL TO RIGID BOARD MAY BE SUBSTITUTED IF APPROVED BY THE ENGINEER.
 5. INSULATION BOARDS SHALL OVERLAP 12" AS SHOWN.



6 LANDFILL SIGN DETAIL
N.T.S.

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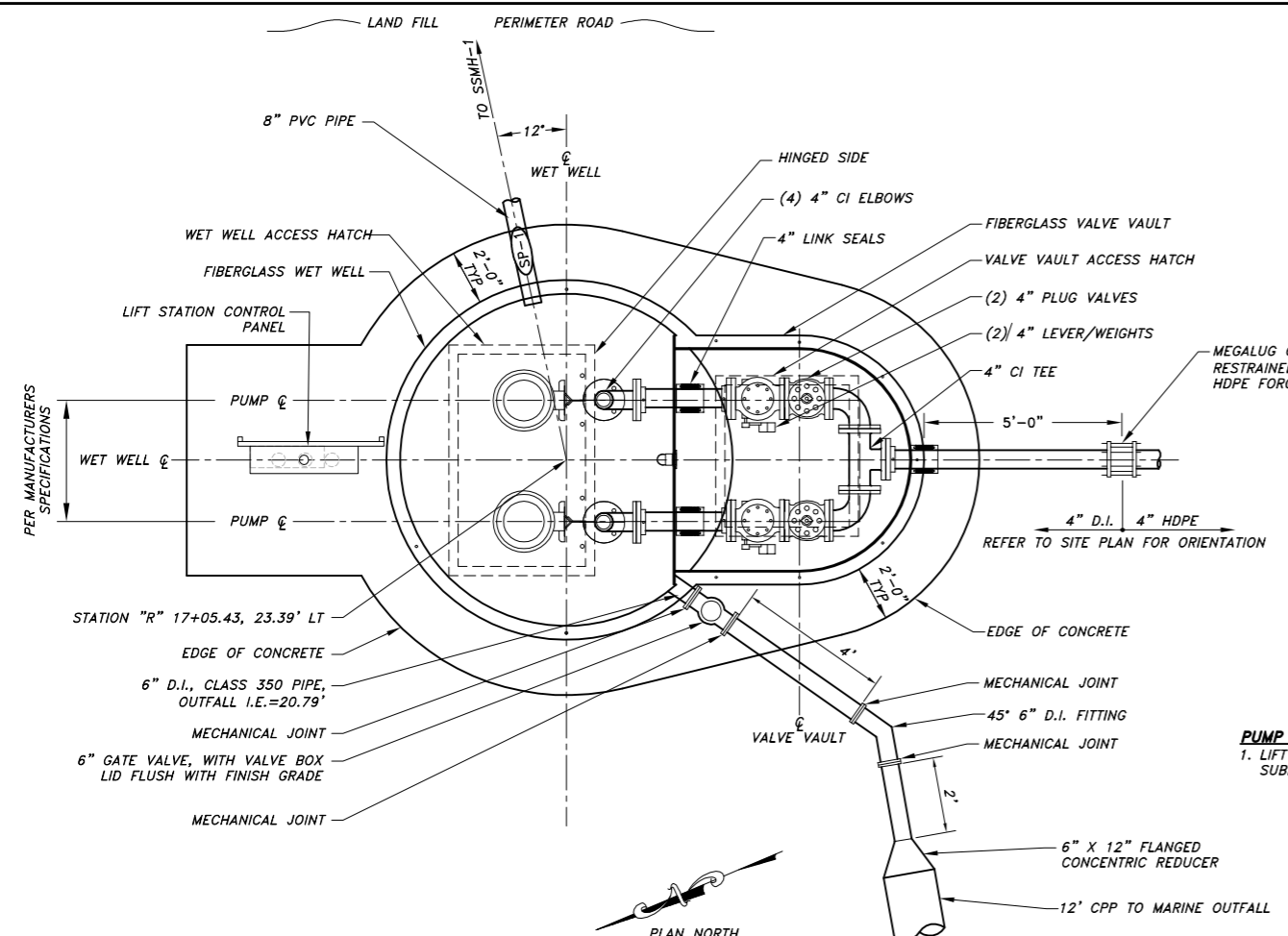
AS-BUILTS
CONSTRUCTION DETAILS



R&M ENGINEERING, INC.
ENGINEERS GEOLOGISTS SURVEYORS
6205 GLACIER HIGHWAY Phone 907-780-6060
JUNEAU, AK. 99801 Fax 907-780-4611
rmengineering@rmjuneau.com

CITY AND BOROUGH OF WRANGELL
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CBW PROJECT No. 2009-10
WRANGELL, ALASKA

DATE:	AUGUST 3, 2012
R&M NO.	101303
SHEET	C300

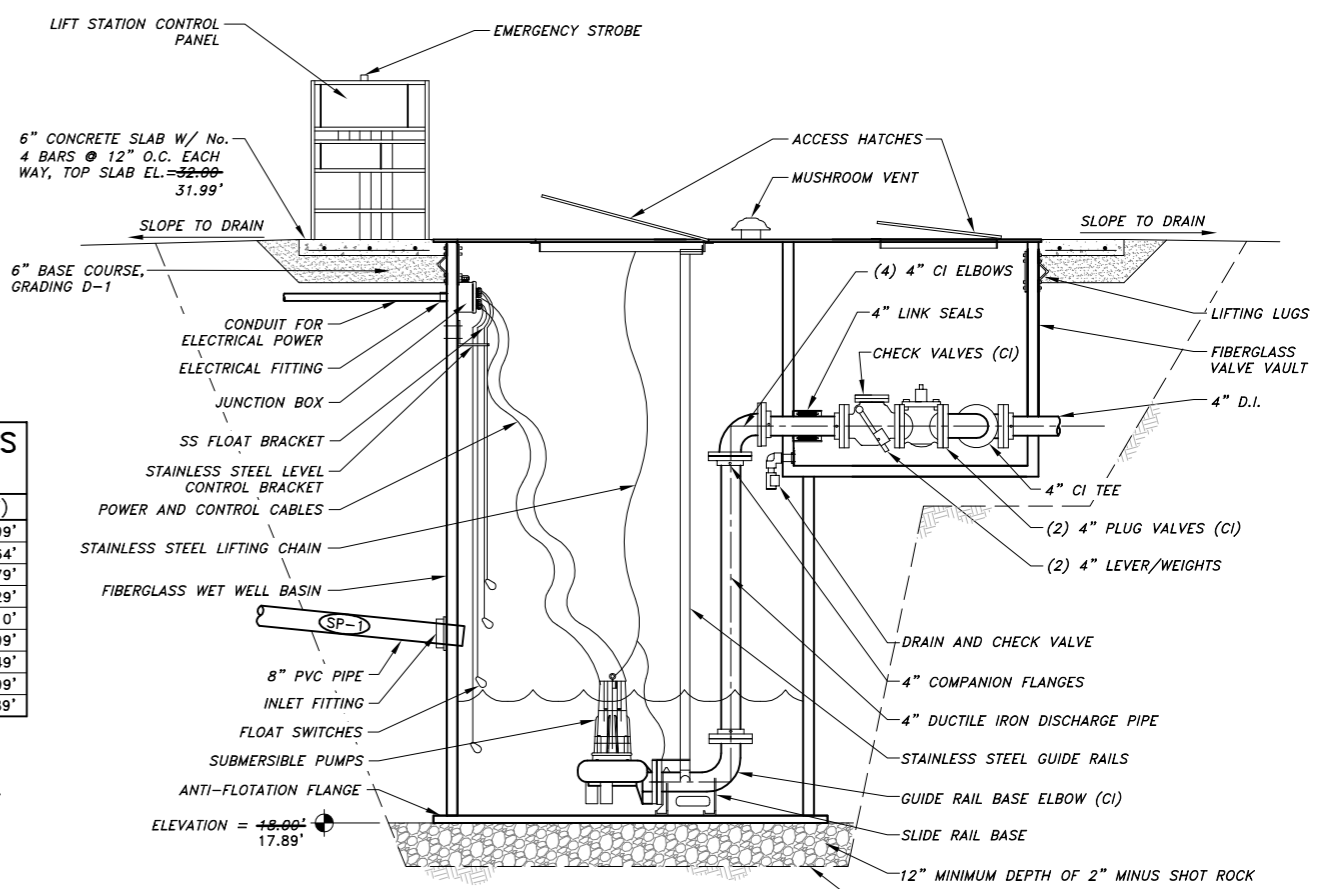


1 PUMP STATION PLAN
N.T.S.

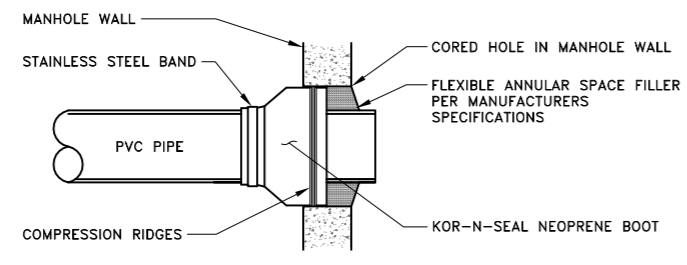
WET WELL ELEVATIONS SCHEDULE

DESCRIPTION	ELEVATION (FT)
TOP SLAB	32.00 31.99'
SP-1 INVERT	23.00 23.64'
6" D.I. OUTFALL INV.	21.6' ± 20.79'
HIGH LEVEL ALARM	22.00 23.29'
LAG PUMP ON	22.00 23.10'
LEAD PUMP ON	22.30 22.99'
PUMPS OFF	19.00 22.49'
LOW LEVEL ALARM	19.30 21.99'
BOTTOM OF WET WELL	18.00 17.89'

PUMP STATION NOTES:
1. LIFT STATION IS STANDARD DUPLEX TYPE WITH (2) SUBMERSIBLE PUMPS, MODEL No. 4103S SPECIFIED.



2 PUMP STATION ELEVATION
N.T.S.



3 SANITARY SEWER MANHOLE CONNECTION DETAIL
N.T.S.

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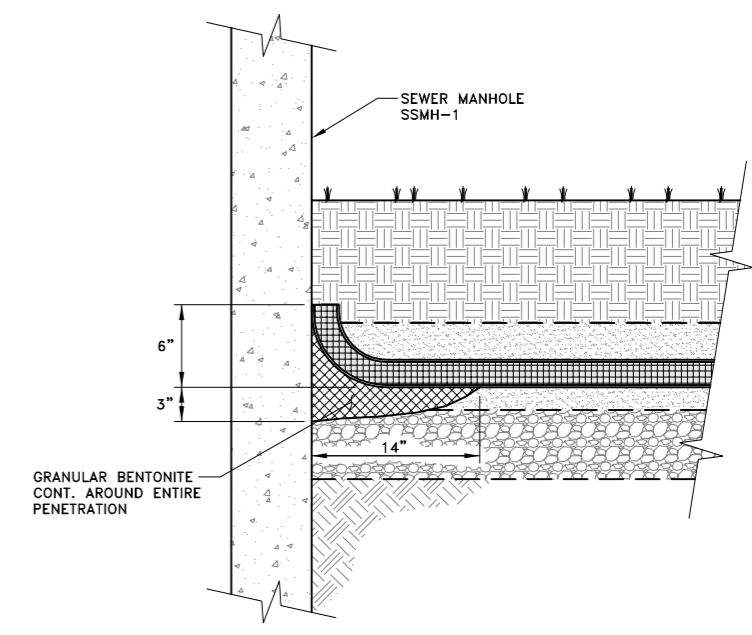
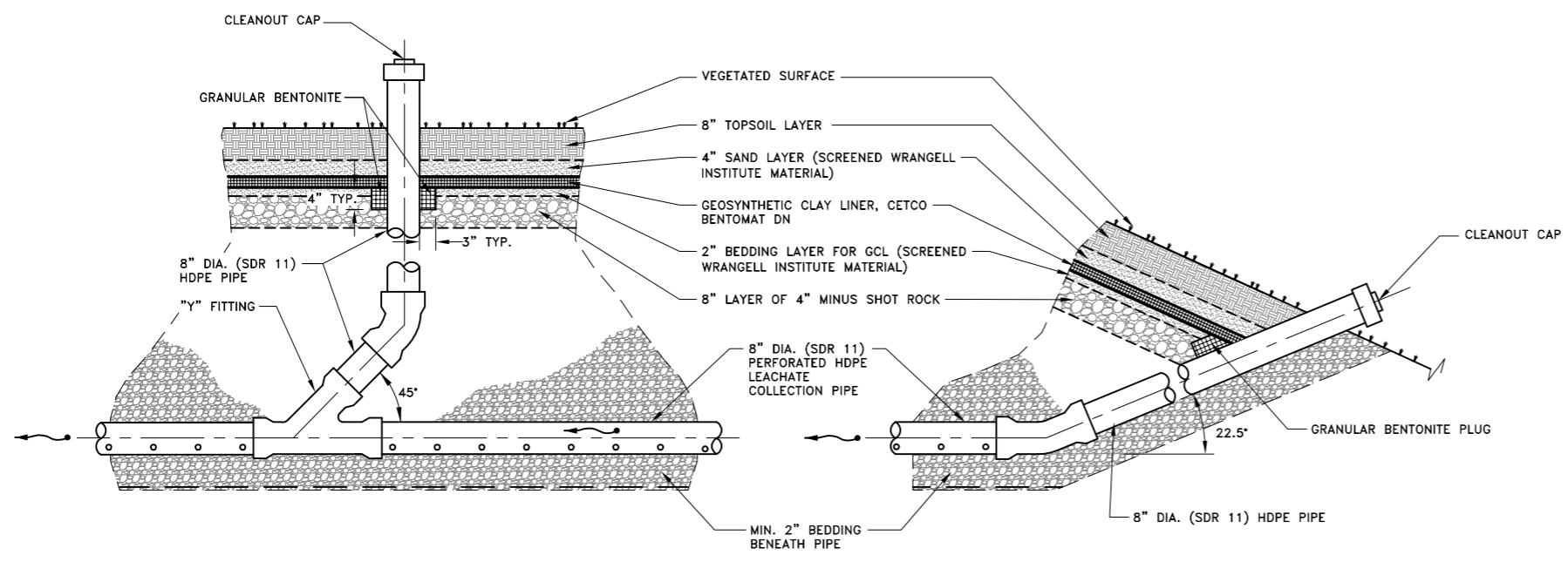
AS-BUILTS
LEACHATE COLLECTION AND PUMPING DETAILS



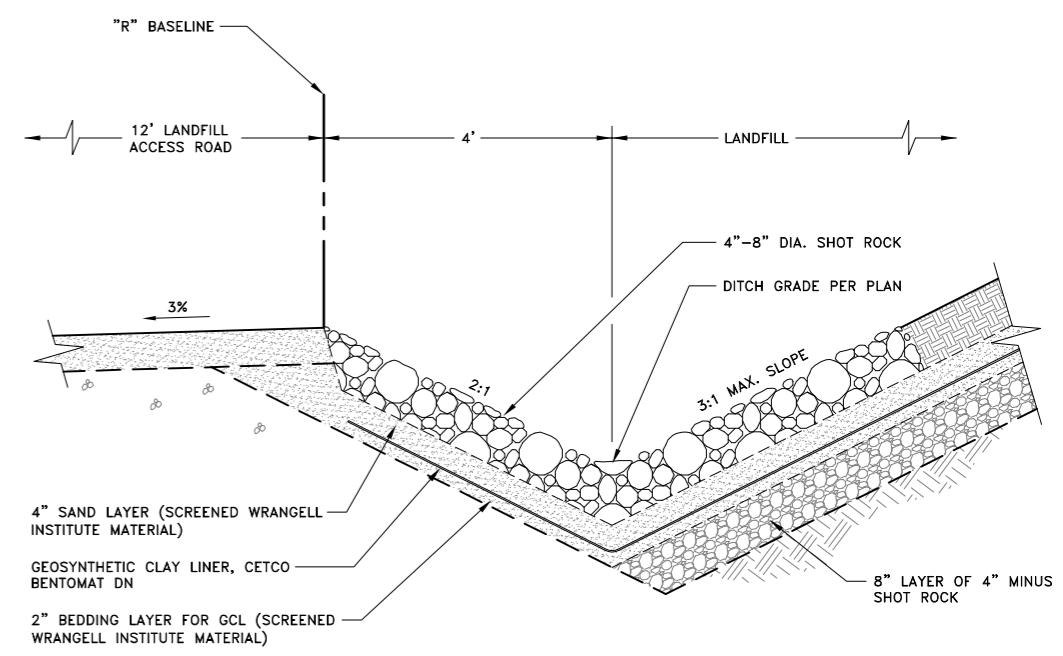
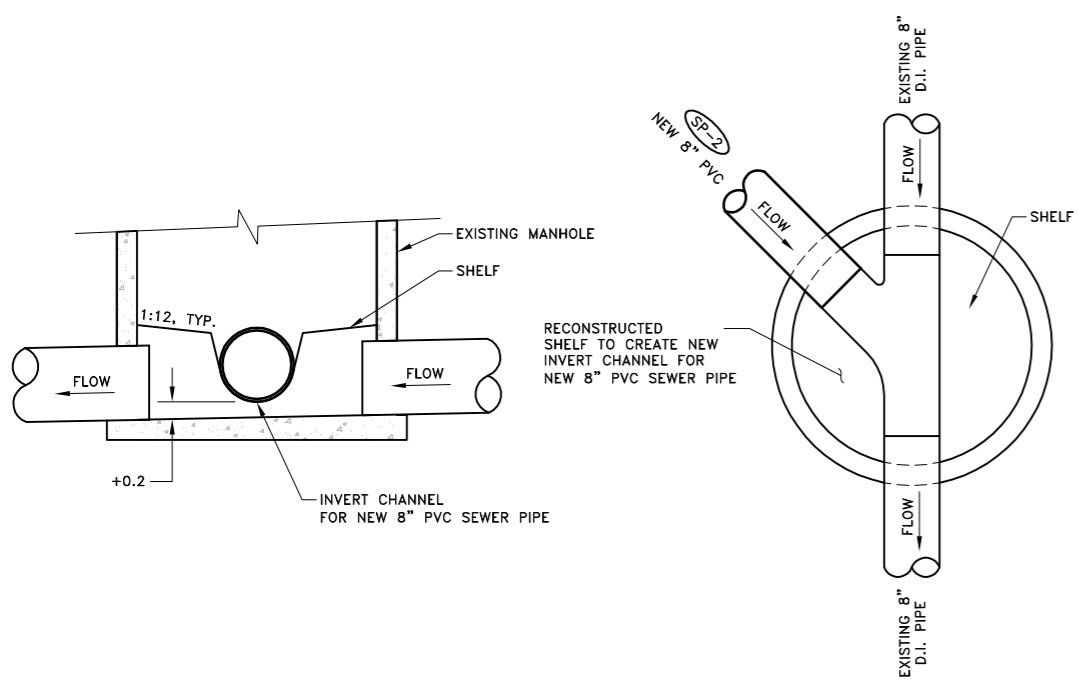
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No.	DATE	REVISION	BY	APRVD.

AS-BUILTS
CONSTRUCTION DETAILS

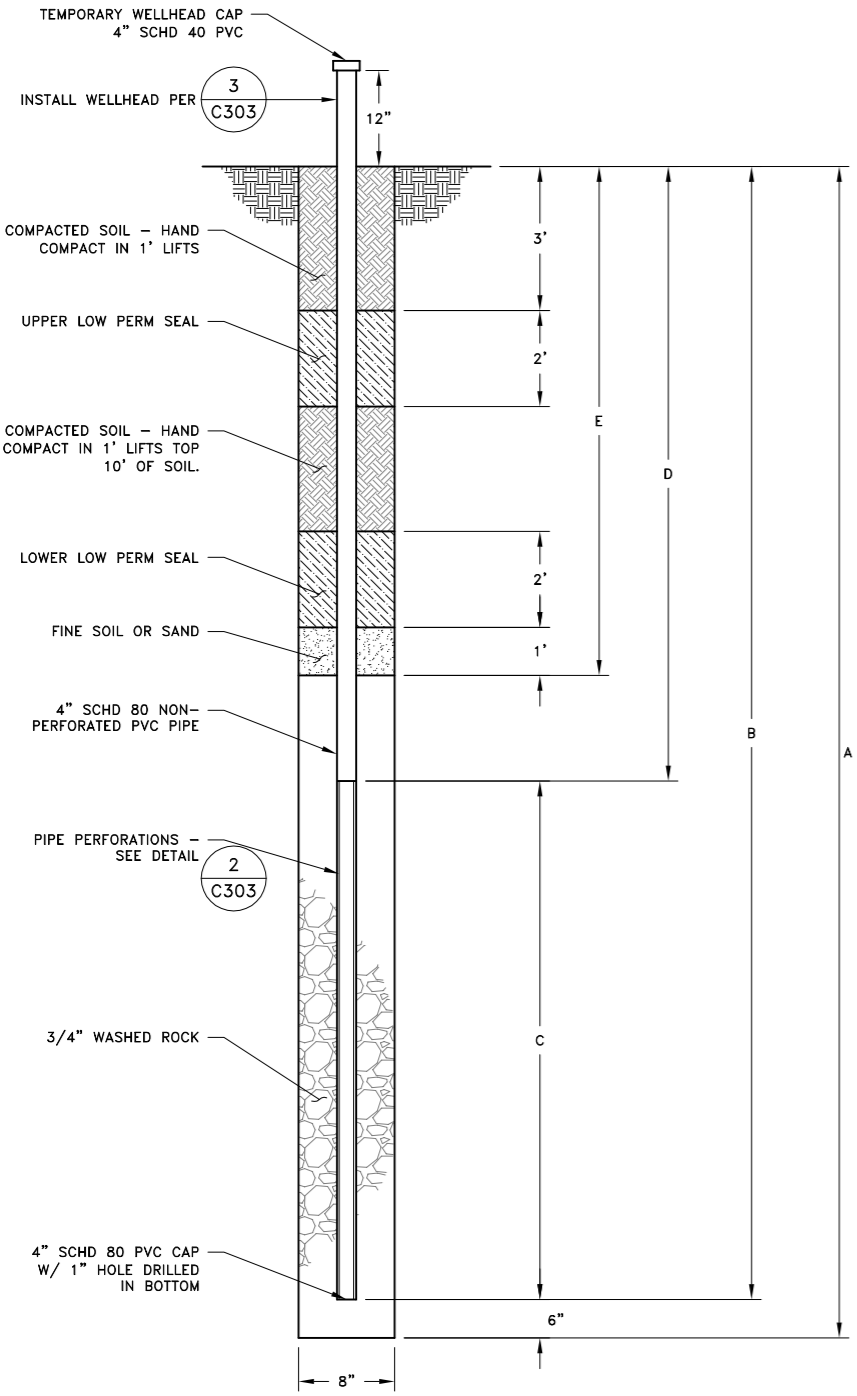


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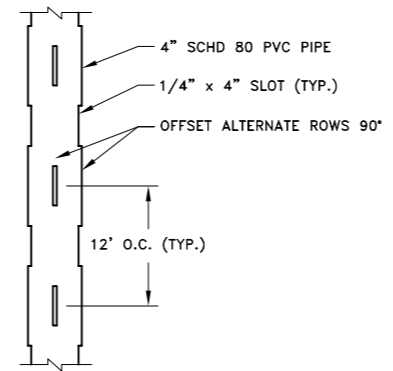
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JUNEAU, AK. 99801 Fax 907-780-4611
rmengineering@rmjuneau.com

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WRANGELL, ALASKA

DATE: AUGUST 3, 2012
R&M NO. 101303
SHEET **C302**

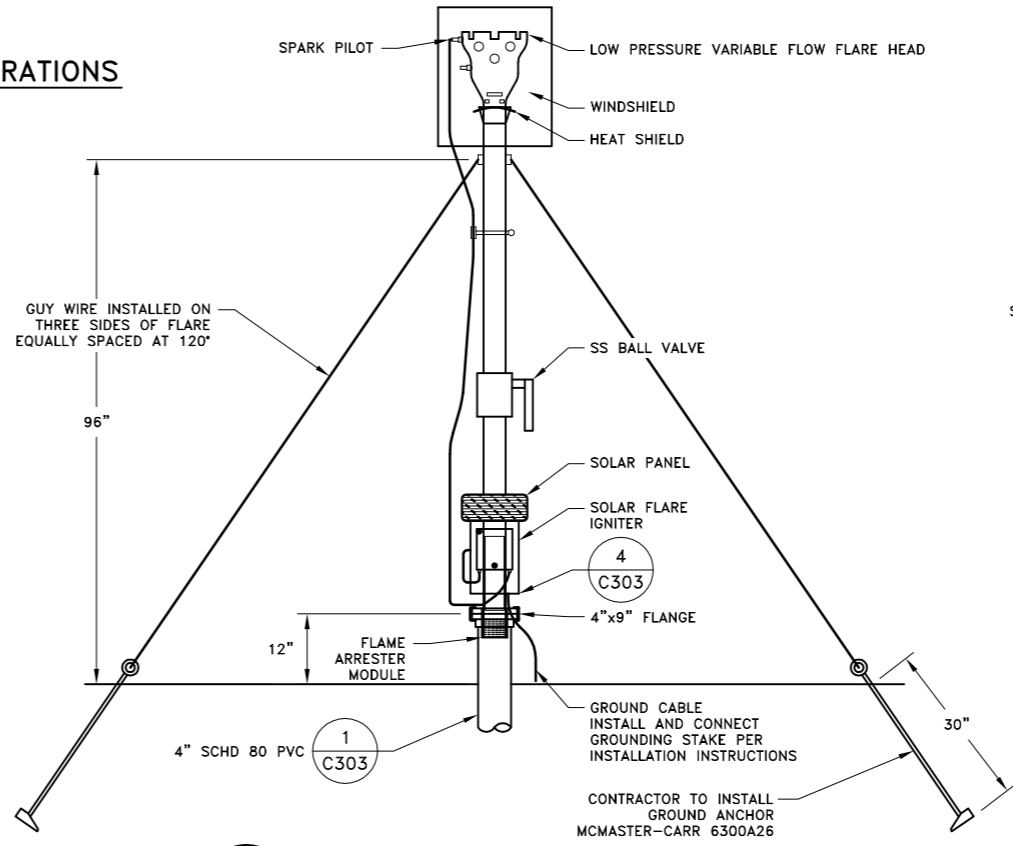


1 VERTICAL LANDFILL GAS EXTRACTION WELL
C303 SCALE: NONE

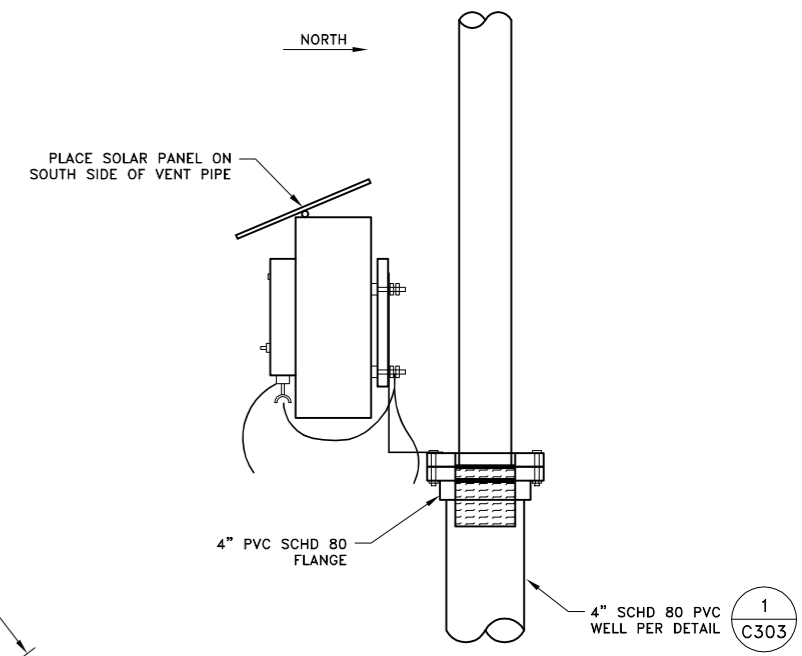


2 PIPE PERFORATIONS
C303 SCALE: NONE

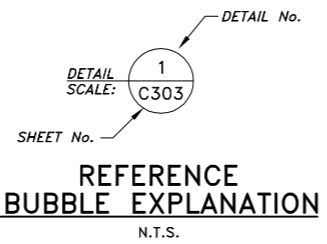
CITY AND BOROUGH OF WRANGELL LANDFILL GAS EXTRACTION WELL TABLE									
WELL NUMBER	NORTHING	EASTING	APPROXIMATE SURFACE ELEVATION	WELL BOTTOM ELEVATION	BORE DEPTH	DEPTH TO BOTTOM OF WELL PIPE	LENGTH OF WELL SCREEN	DEPTH TO TOP OF WELL SCREEN	DEPTH TO TOP OF ROCK PACK
	(FT)	(FT)	(FT)	(FT)	A (FT)	B (FT)	C (FT)	D (FT)	E (FT)
GW-1	10029.9	9981.0	120.34	100.34	40	20	10	9	7
GW-2	9767.5	9690.2	78.73	59.73	19	19	15	4	4



3 GAS EXTRACTION WELL HEAD DETAIL
C303 SCALE: NONE



4 VENT MOUNT DETAIL
C303 SCALE: NONE



REFERENCE BUBBLE EXPLANATION
N.T.S.

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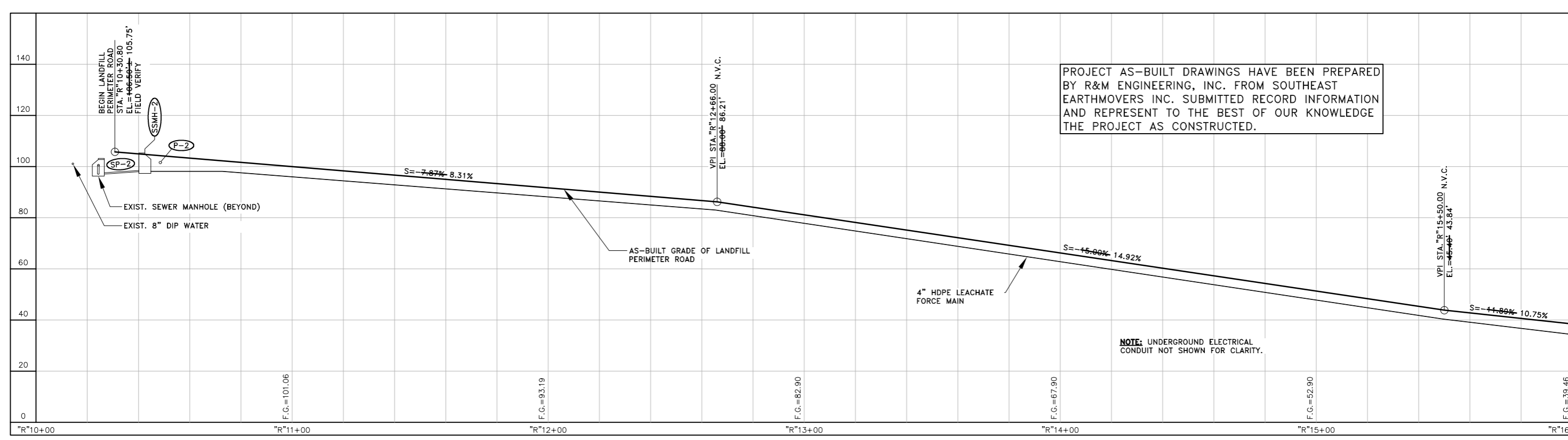
AS-BUILTS
LANDFILL GAS EXTRACTION
WELL DETAILS



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ENGINEERS GEOLOGISTS SURVEYORS
6205 GLACIER HIGHWAY Phone 907-780-6060
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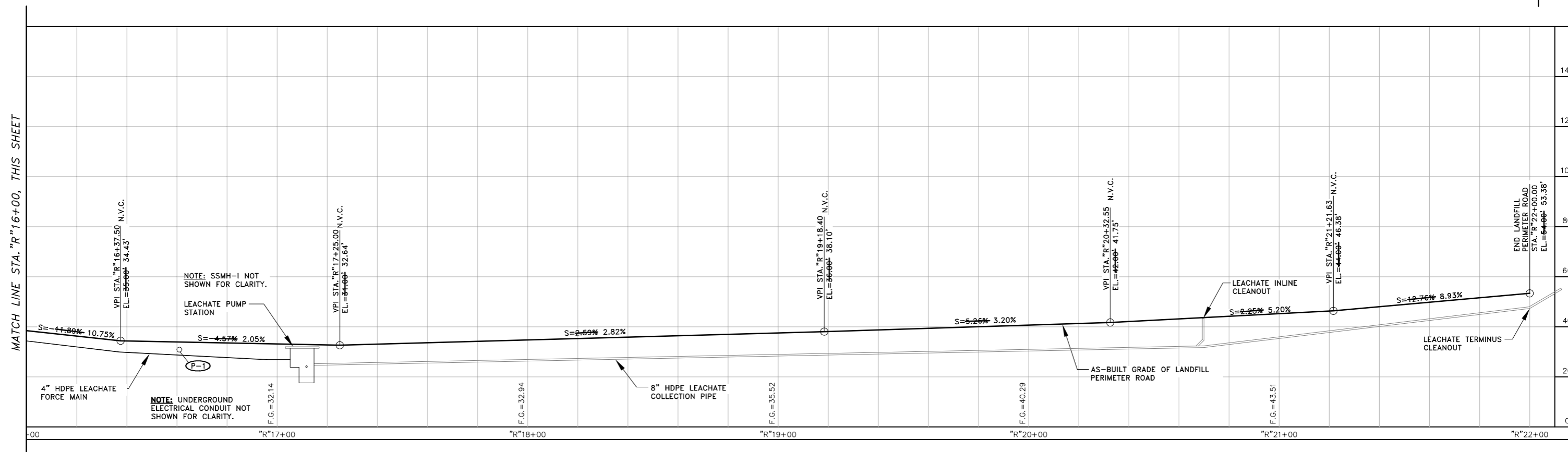
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NOTE: UNDERGROUND ELECTRICAL CONDUIT NOT SHOWN FOR CLARITY.

MATCH LINE STA. "R"16+00, THIS SHEET



NOTE: SSMH-1 NOT SHOWN FOR CLARITY.

NOTE: UNDERGROUND ELECTRICAL CONDUIT NOT SHOWN FOR CLARITY.

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DESIGN	JMP
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CHECK	MAJ
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AS-BUILTS
LANDFILL PERIMETER ROAD
PROFILE
 GRAPHIC SCALE



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 ENGINEERS GEOLOGISTS SURVEYORS
 6205 GLACIER HIGHWAY Phone 907-780-6060
 JUNEAU, AK. 99801 Fax 907-780-4611
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CITY AND BOROUGH OF WRANGELL
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 LANDFILL CLOSURE PLAN
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 WRANGELL, ALASKA

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 R&M NO. 101303
 SHEET **C400**