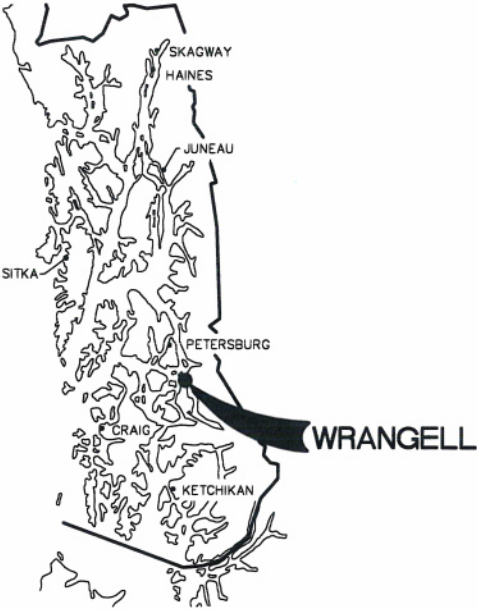


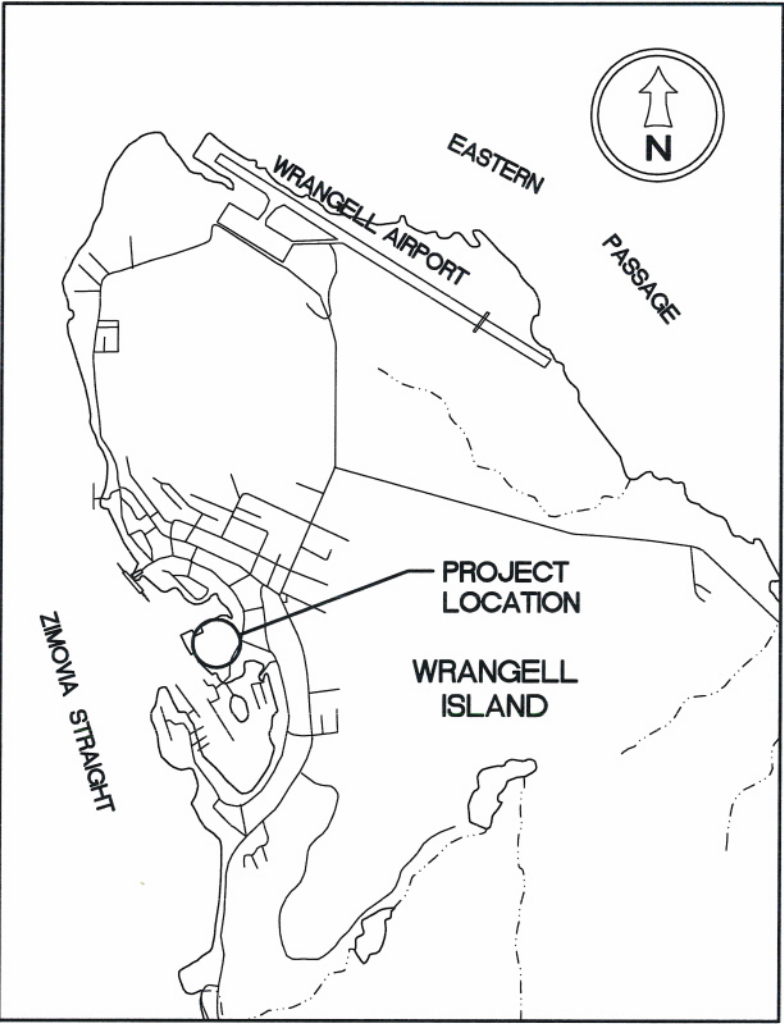
CITY AND BOROUGH OF WRANGELL WRANGELL MARINE SERVICE CENTER CONCRETE PAVING 2012



LOCATION MAP



SOUTHEAST ALASKA



VICINITY MAP

PROJECT SCHEDULE

DESCRIPTION	SCHEDULE
AREA 1 - SUBSTANTIAL COMPLETION	JULY 1, 2012
AREA 2 - SUBSTANTIAL COMPLETION	AUGUST 1, 2012
AREA 3 - SUBSTANTIAL COMPLETION	SEPTEMBER 1, 2012
AREA 4 - SUBSTANTIAL COMPLETION	SEPTEMBER 14, 2012
AREA 5 - SUBSTANTIAL COMPLETION	OCTOBER 15, 2012
ADDITIVE ALTERNATE A - EARLY START	OCTOBER 1, 2012
ADDITIVE ALTERNATE A - SUBSTANTIAL COMPLETION	OCTOBER 15, 2012
AREA 6 - ADDITIVE ALTERNATE B - SUBSTANTIAL COMPLETION	NOVEMBER 15, 2012
TOTAL FINAL COMPLETION	NOVEMBER 30, 2012

NOTE: CONCRETE COMPRESSIVE STRENGTH SHALL OBTAIN 80% f'c BY THE SUBSTANTIAL COMPLETION DATES LISTED.

DESIGN PARAMETERS:

APPLICABLE CODES:

LIVE LOADS:

Truck: ASSHTO HS20-44
Forklift: 100 ton Axle (200,000 lbs Axle, 100,000 lbs Wheel)
Travelift: 250 BFM (250 ton) Travelift
Uniform Load: 1000 psf

NOTE:

The edges of concrete are designed for the Forklift and Travelift listed above at the concrete ramp, washdown pad and thickened edges of concrete. The 12" edge of concrete at the existing slabs are designed for ASSHTO HS20-44 only.

DRAWING INDEX

SHEET NO.	DWG. NO.	SHEET TITLE
1 OF 18	1.01	COVER SHEET, VICINITY MAP & DRAWING INDEX
2 OF 18	1.02	LEGEND, ABBREVIATIONS, & GENERAL NOTES
3 OF 18	1.03	DOT/STATE AIRPORT QUARRY USAGE PLAN
4 OF 18	1.04	EXISTING CONDITIONS AND SURVEY CONTROL
5 OF 18	1.05	DEMOLITION SITE PLAN
6 OF 18	2.01	CONSTRUCTION SEQUENCE & OVERALL GRADING CONTOURS SITE PLAN
7 OF 18	2.02	AREA 1 SITE PLAN
8 OF 18	2.03	AREA 2 SITE PLAN
9 OF 18	2.04	AREA 3 SITE PLAN
10 OF 18	2.05	AREA 4 SITE PLAN
11 OF 18	2.06	AREA 5 SITE PLAN
12 OF 18	2.07	TYPICAL SECTIONS
13 OF 18	2.08	TYPICAL SECTIONS
14 OF 18	2.09	TYPICAL SECTIONS
15 OF 18	2.10	STORM DRAIN DETAILS
16 OF 18	2.11	ADDITIVE ALTERNATE A SITE PLAN
17 OF 18	2.12	ADDITIVE ALTERNATE A DETAILS
18 OF 18	2.13	ADDITIVE ALTERNATE B AREA 6 SITE PLAN

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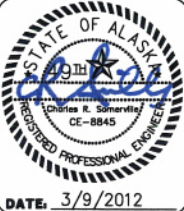
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REV.	DATE	DESCRIPTION	DWN.	CKD.

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DRAWN: LRG
CHECKED: BMI
APPROVED: CRS

SCALE:
AS SHOWN



CITY AND BOROUGH OF WRANGELL, ALASKA
WRANGELL MARINE SERVICE CENTER
CONCRETE PAVING

SHEET TITLE:
COVER SHEET
VICINITY MAP AND DRAWING INDEX

PND PROJECT NO.: 112071.01 DWG. FILE: 1.01.DWG

1.01
SHEET
1 OF 18

ABBREVIATIONS

A		H		R	
⊙	AT	H&T	HUB & TACK	RAD	RADIUS
AC	ASBESTOS CEMENT PIPE	HD	HEAVY DUTY	RE	RIM ELEVATION
ACP	ASPHALT CONCRETE PAVEMENT	HDPE	HIGH DENSITY POLYETHYLENE	REF	REFERENCE
ADJ	ADJUSTABLE	HORIZ	HORIZONTAL	REINF	REINFORCEMENT
APF	ASSOCIATED PILE AND FITTING CORP.	HSE	HOUSE	REQD	REQUIRED
APPROX.	APPROXIMATE	HT	HEIGHT	RET	RETAINING
AV	AIR RELEASE VALVE	HWY.	HIGHWAY	RO	ROUGH OPENING
B		I		ROW	RIGHT OF WAY
BFV	BUTTERFLY VALVE	ID	INSIDE DIAMETER	S	
BLDG	BUILDING	IE	INVERT ELEVATION	S	SOUTH
BOP	BEGINNING OF PROJECT	IN	INCH	SCHED	SCHEDULE
BTM,BOT	BOTTOM	IP	IRON PIPE	SD	STORM DRAIN
C		INCL	INCLUDE (D) (ING)	SDI	STORM DRAIN INLET STRUCTURE
C&G	CURB & GUTTER	INSUL	INSULATE (D) (ION)	SDO	STORM DRAIN OUTLET STRUCTURE
CB	CATCH BASIN	INV	INVERT	SDR	STANDARD DIMENSION RATIO
CI	CAST IRON	J		SF	SQUARE FOOT
CIP	CAST-IN-PLACE	JB	JUNCTION BOX	SHLDR	SHOULDER
CJ	CONTROL JOINT	L		SI	STREET INTERSECTION
CL	CENTER LINE	LBS	POUNDS	SPEC	SPECIFICATION (S)
CLR	CLEAR	LF	LINEAR FEET	SQ	SQUARE
CMP	CORRUGATED METAL PIPE	LL	LIVE LOAD	SSC	SANITARY SEWER CONNECTION
CO	CLEANOUT	LOC	LOCATION	SS	STAINLESS STEEL, SANITARY SEWER
C.O.E.	CORPS OF ENGINEERS	LS	LUMP SUM	SDMH	STORM DRAIN MANHOLE
CONC.	CONCRETE	M		SSMH	SANITARY SEWER MANHOLE
CP	COMPLETE PENETRATION	MAX	MAXIMUM	STA	STATION
CPP	CORRUGATED POLYETHYLENE PIPE	ME	MATCH EXISTING	STD	STANDARD
COR	CORNER	MECH	MECHANICAL	STL	STEEL
CSC	COUNTERSINK	MFR	MANUFACTURE (R)	STRG	STRONG
CTR	CENTER	MH	MANHOLE	SW	SIDEWALK
CY	CUBIC YARD	MI	MALLEABLE IRON	SWR	SEWER
D		MIN	MINIMUM	SY	SQUARE YARD
D/DIA	DIAMETER	MLLW	MEAN LOWER LOW WATER	SYM	SYMMETRICAL
DBL	DOUBLE	MSF	1000 SQUARE FEET	T	
DL	DEAD LOAD	MSE	MECHANICALLY STABILIZED EARTH	T&B	TOP AND BOTTOM
DIP	DUCTILE IRON PIPE	MTL	MATERIAL (S)	T&G	TONGUE AND GROOVE
DIM	DIMENSION	N		TBC	TOP BACK OF CURB
DN	DOWN	N	NORTH	TBM	TEMPORARY BENCH MARK
DTL	DETAIL	NFS	NON FROST SUSCEPTIBLE	TD	TRENCH DRAIN
E		NIC	NOT IN CONTRACT	TEL	TELEPHONE
E	EAST	NO	NUMBER	TEMP	TEMPERATURE, TEMPORARY
EA.	EACH	NTS	NOT TO SCALE	TH	TEST HOLE
EJ	EXPANSION JOINT	O		THK	THICK
EL/ELEV	ELEVATION	OBD	OVERBURDEN	TRANS	TRANSVERSE
EOP	END OF PROJECT	OC	ON CENTER	TV	TELEVISION
EOPC	EDGE OF CONCRETE PAVEMENT	OD	OUTSIDE DIAMETER	TYP	TYPICAL
EQ	EQUAL	OG	ORIGINAL GROUND	U	
EQUIP	EQUIPMENT	OHE	OVERHEAD ELECTRICAL	UBC	UNIFORM BUILDING CODE
EST	ESTIMATE	OWS	OIL-WATER SEPARATOR	UE	UNDERGROUND ELECTRIC
EXC	EXCAVATE	OPP	OPPOSITE	UMC	UNIFORM MECHANICAL CODE
EXIST	EXISTING	P		UHMW	ULTRA HIGH MOLECULAR WEIGHT
F		P	PIPE	UON	UNLESS OTHERWISE NOTED
FC	FACE OF CURB	PC	POINT OF CURVATURE, PIECE	UPC	UNIFORM PLUMBING CODE
FD	FLOOR DRAIN	PCC	PRECAST CONCRETE	V	
FF	FINISHED FLOOR	PED	PEDESTAL	VB	VALVE BOX
FH	FIRE HYDRANT, FLAT HEAD	PER	PERIMETER	VERT	VERTICAL
FIN	FINISH (ED)	PERF	PERFORATE (D)	W	
FM	FORCE MAIN SEWER	PI	POINT OF INTERSECTION	W	WEST
FND	FOUNDATION	PL	PLYWOOD	W/	WITH
FT	FOOT	PLWD	PROPERTY LINE, PLATE	WD	WOOD
FTG	FOOTING	PROJ	PROJECT	WELDMT	WELDMENT
FL	FLOWLINE	PRV	PRESSURE REDUCING VALVE	WL	WATERLINE
G		PSI	POUND PER SQUARE INCH	WV	WATER VALVE
GAL	GALLON	PT	POINT, PRESSURE TREATED,	W/O	WITHOUT
GALV	GALVANIZED	PVC	POINT OF TANGENCY	X	
GB	GRADE BREAK	Q		XFMR	TRANSFORMER
GPM	GALLONS PER MINUTE	QTY	QUANTITY	<PT	ANGLE POINT
GRD	GROUND				
GV	GATE VALVE				

GENERAL NOTES

1. CONTRACTOR SHALL INSTALL TEMPORARY DEVICES CONSISTING OF BUT NOT LIMITED TO STRAW BALES, FILTER FABRIC FENCES, SETTLING POND, ETC., TO PROHIBIT SILT LADEN DEWATERING EFFLUENT AND OTHER CONSTRUCTION RUNOFF FROM ENTERING ADJACENT WATER BODIES. CONTRACTOR IS RESPONSIBLE FOR THE QUALITY OF THE DEWATERING EFFLUENT AND OTHER CONSTRUCTION RUNOFF THAT ENTERS ADJACENT WATER BODIES AND IS, THEREFORE, RESPONSIBLE FOR VIOLATIONS AND PENALTIES FROM HIS OPERATIONS.
2. PROPERTY DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO ITS PRE-CONSTRUCTION CONDITION OR BETTER AT NO ADDITIONAL COST.
3. EXISTING UTILITIES & DRAIN PIPE LOCATIONS ARE DERIVED FROM WRANGELL AS-BUILTS OR FIELD LOCATES. ACTUAL LOCATIONS MAY VARY FROM THOSE SHOWN. DEPTH OF EXISTING PIPES SHOWN ON ELEVATIONS ARE ASSUMED. DIAL BEFORE YOU DIG.
4. GRADING, STRUCTURES & FINAL SURFACING ARE SUBJECT TO MINOR REVISIONS BY THE ENGINEER TO FIT SITE CONDITIONS. GRADE ALL IMPROVEMENTS WITH POSITIVE DRAINAGE AWAY FROM STRUCTURES.

LEGEND

EXISTING	PROPOSED	EXISTING	PROPOSED
_____		⋈ WV	⬤ WV

- X - X - X -		○⊙	
_____OHE_____			▽4

_____EU x_____		⊙SSMH	
_____SS x_____		p p	
_____SD x_____	⊖P1	⊙	
_____SD_A_____		⊙	
_____W x_____	— GB —	⊞ TR	
		●	
⚡		+ -25.2	23.2
⊙			
◆	⊞		⊙319
⊞	⊞		
⊞XFMR	⊞T		⬤N
⊞FH	⊞FH		
—			⊞S2
⚡			
⚡			

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DRAWN: KLL
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CITY AND BOROUGH OF WRANGELL, ALASKA
WRANGELL MARINE SERVICE CENTER
CONCRETE PAVING

SHEET TITLE:
LEGEND,
ABBREVIATIONS & GENERAL NOTES

PND PROJECT NO.: 112071.01 DWG. FILE: 1.02.DWG

1.02
SHEET
2 OF 18

DOT, STATE OF ALASKA
WRANGELL AIRPORT QUARRY USAGE PLAN

THE STATE OF ALASKA, DOT, HAS ISSUED PROVISIONS FOR THE USE OF THE WRANGELL AIRPORT (WRG) QUARRY AS FOLLOWS:

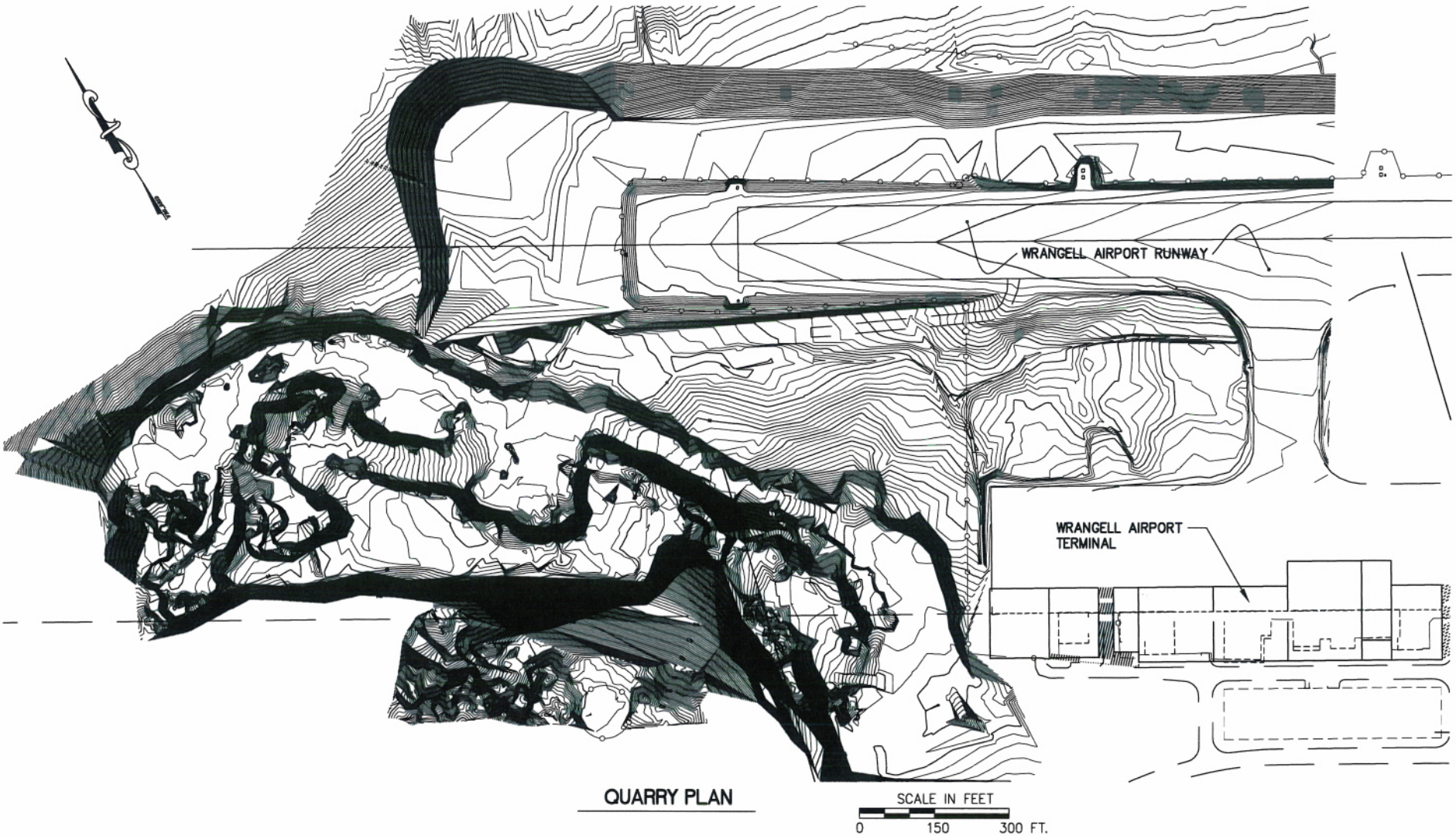
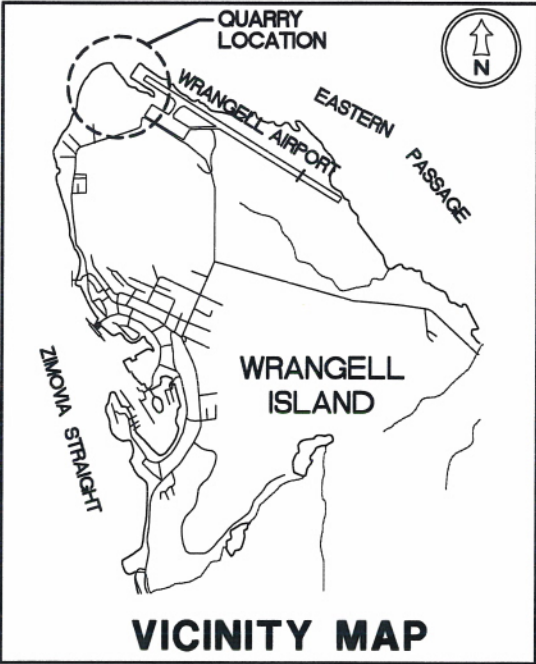
- DOT/PF REVIEW OF PROPOSED OPERATIONS AND DEPARTMENT APPROVAL IS BASED ON THE DETERMINATION THAT PROPOSALS WON'T INTERFERE WITH AIRPORT OPERATIONS, ON GOING STATE DEPARTMENT PROJECTS IN THE QUARRY AND CURRENT AGREEMENTS FOR QUARRY USE.
- IF THE DEPARTMENT APPROVES AND ISSUES A PERMIT TO OPERATE, THE CONTRACTOR WOULD NEED TO APPLY FOR AN AIRPORT BUILDING PERMIT, SEE LINK BELOW. UNDER THE AIRPORT BUILDING PERMIT APPLICATION REVIEW, DOT/PF WOULD SEEK ASSURANCE OF CONTRACTOR COMPLIANCE WITH ALL OTHER PERMITTING NECESSARY, INCLUDING BUT NOT LIMITED TO:
 - FAA CONCURRENCE (AIRSPACE, BLASTING PLAN & CONTROLLED FIRING AREA REQUIREMENTS)
 - EXPLOSIVES STORAGE PERMITTING/LICENSEING
 - AIRPORT OPERATIONAL SAFETY PLAN
 - DEC REQUIREMENTS
 - EPA REQUIREMENTS
 - US FISH AND WILDLIFE REQUIREMENTS (BALD EAGLE PROTECTION ACT)
 - LOCAL PERMITTING (NOISE ZONING)
 - DNR MINING REQUIREMENTS - MINING AND RECLAMATION PLAN MUST ALSO MEET DOT/PF APPROVAL TO ASSURE FINAL MINING PLAN MEETS DEPARTMENT NEEDS AS WELL AS CONTRACTOR'S NEEDS
 - ARMY CORPS OF ENGINEER PERMITS
- ANY NEED TO RELOCATE EQUIPMENT CURRENTLY ON THE HILL ABOVE THE ROCK QUARRY REQUIRES DOT/PF CONSENT AND RELOCATION AT NO EXPENSE TO DOT/PF.
- DOT/PF STAFF TIME REQUIRED FOR MONITORING QUARRY ACTIVITIES ABOVE AND BEYOND WHAT IS REASONABLE MAY BE BILLED TO THE CONTRACTOR (I.E. ASSISTANCE WITH CLEAN-UP FOR OVER BLASTING).
- THE ROYALTY REQUIRED FOR RIGHTS TO THE ROCK TO BE DETERMINED BY DOT/PF. CONTRACTOR SHALL OBTAIN ROYALTY INFORMATION FROM DOT/PF FOR BIDDING PURPOSES.

LYN CAMPBELL IS THE CONTACT FOR THE WRANGELL AIRPORT QUARRY. ALL ARRANGEMENTS FOR THE AIRPORT QUARRY USE MUST BE MADE WITH LYN CAMPBELL. HER TELEPHONE NUMBER IS 907-465-1785. APPLY OR PAY ON LINE: <https://eleasing.dot.state.ak.us/airWeb/presentation/Login.po>

THE STATE OF ALASKA LABORATORY TEST RESULTS HAVE BEEN COMPARED AGAINST SPECIFICATIONS AND MINIMUM TEST STANDARDS FOR THE THIS PROJECT AND HAVE RESULTED IN THE FOLLOWING:

- ATM 313 - DEGRADATION VALUE OF AGGREGATES: DEGRADATION VALUE = 77
- AASHTO T 96 - RESISTANCE OF DEGRADATION OF SMALL-SIZE COURSE AGGREGATE BY ABRASION AND IMPACT IN THE LA MACHINE, USING GRADING B, WITH CRUSHING: LOSS = 33%
- SODIUM SULFATE TEST BY AASHTO T104: LOSS = 1%
- NORDIC ABRASION = 14.7%

THE ENGINEER OF RECORD AND CITY & BOROUGH OF WRANGELL HAS REVIEWED THE ANALYSIS AND CONCLUDED THAT THE STATE AIRPORT QUARRY IS SUITABLE FOR ALL ROCK PRODUCTS FOR THIS PROJECT.



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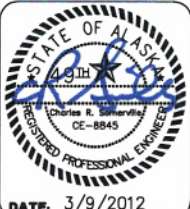
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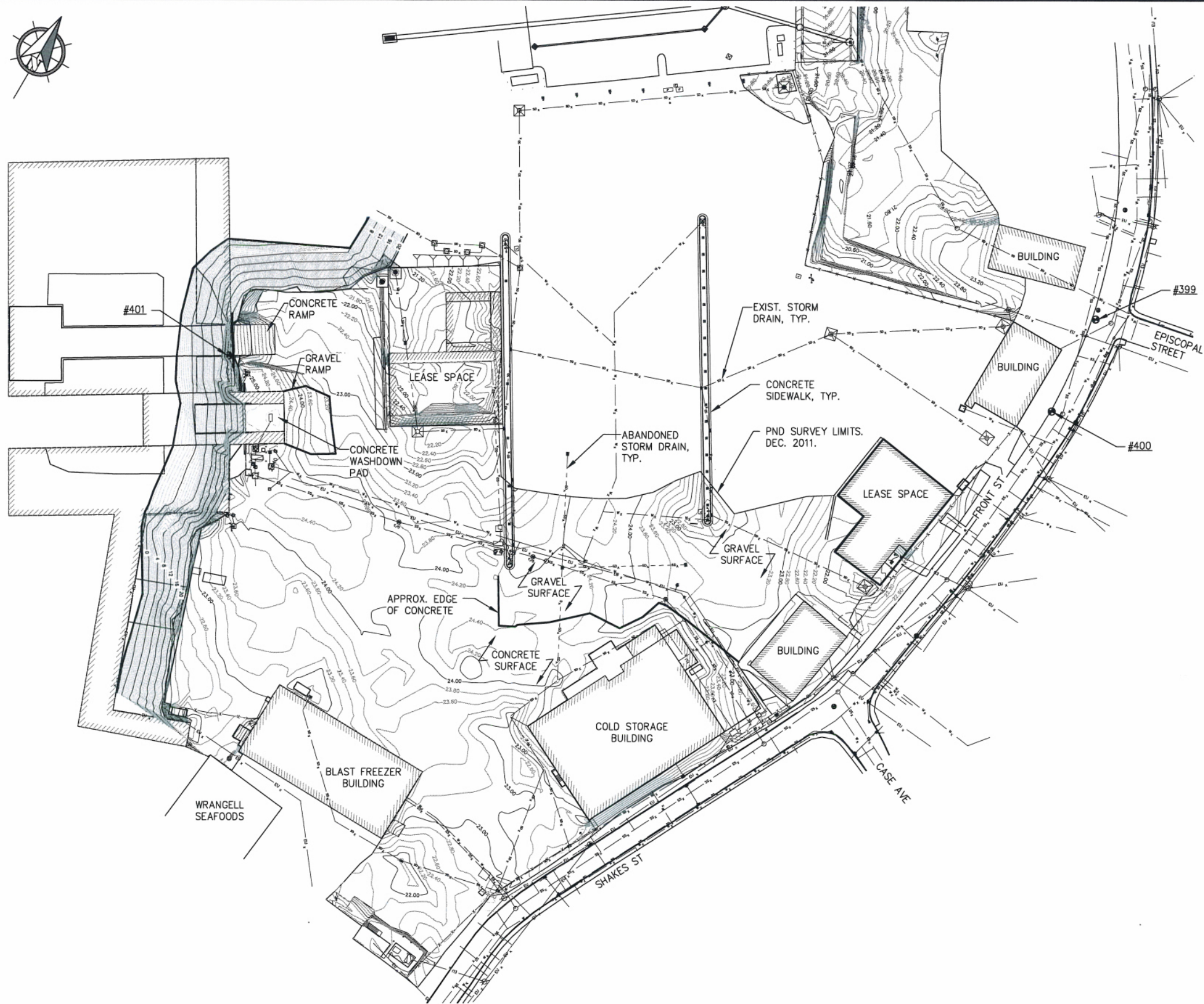


CITY AND BOROUGH OF WRANGELL, ALASKA
WRANGELL MARINE SERVICE CENTER
CONCRETE PAVING

SHEET TITLE:
DOT/STATE AIRPORT
QUARRY USAGE PLAN

PND PROJECT NO.: 112071.01
DWG. FILE: 1.03.DWG

1.03
SHEET
3 OF 18



NOTES

- BOUNDARY INFORMATION IS BASED ON A SURVEY PLAT BY SHEFF & ASSOCIATES. DATE MAY 31, 2005.
- REFERENCE THE FOLLOWING PLATS WITHIN THE WRANGELL RECORDING DISTRICT
PLAT #95-8 A.W.L.C. RESUBDIVISION
PLAT #2001-3 SORTYARD SUBDIVISION
PLAT #2003-1 W.S.I. SUBDIVISION
PLAT #2003-2 NOLAN SUBDIVISION
- THE BASIS OF VERTICAL DATUM UTILIZED FOR THIS SURVEY WAS BENCHMARK NO. 6 (1954) AS REPORTED BY THE U.S.C.&G.S. SOUTHEAST ALASKA TIDAL BENCHMARKS DATED 4/25/94 FOR WRANGELL HAVING AN ACCEPTED ELEVATION OF 39.27' M.L.L.W.
- EXISTING TOPOGRAPHY, UTILITIES AND SITE FEATURES WERE SURVEYED AND UPDATED BY PND ENGINEERS IN DECEMBER 2011. UPDATED CONTOURS ARE SHOWN @ 0.2' CONTOUR INTERVALS. THE LIMITS OF THIS SURVEY ARE AS SHOWN.

SURVEY CONTROL DATA

NUMBERS	NORTHING	EASTING	ELEV	DESCRIPTION
399	9227.39	11354.63	--	H&W #399 CENTERLINE BC - FRONT STREET
400	9136.19	11362.13	20.75	H&W #400 CENTERLINE BC - FRONT STREET
401	8809.37	10697.22	25.28	BRASS CAP SET IN CONC CURB

REVISIONS

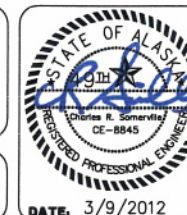
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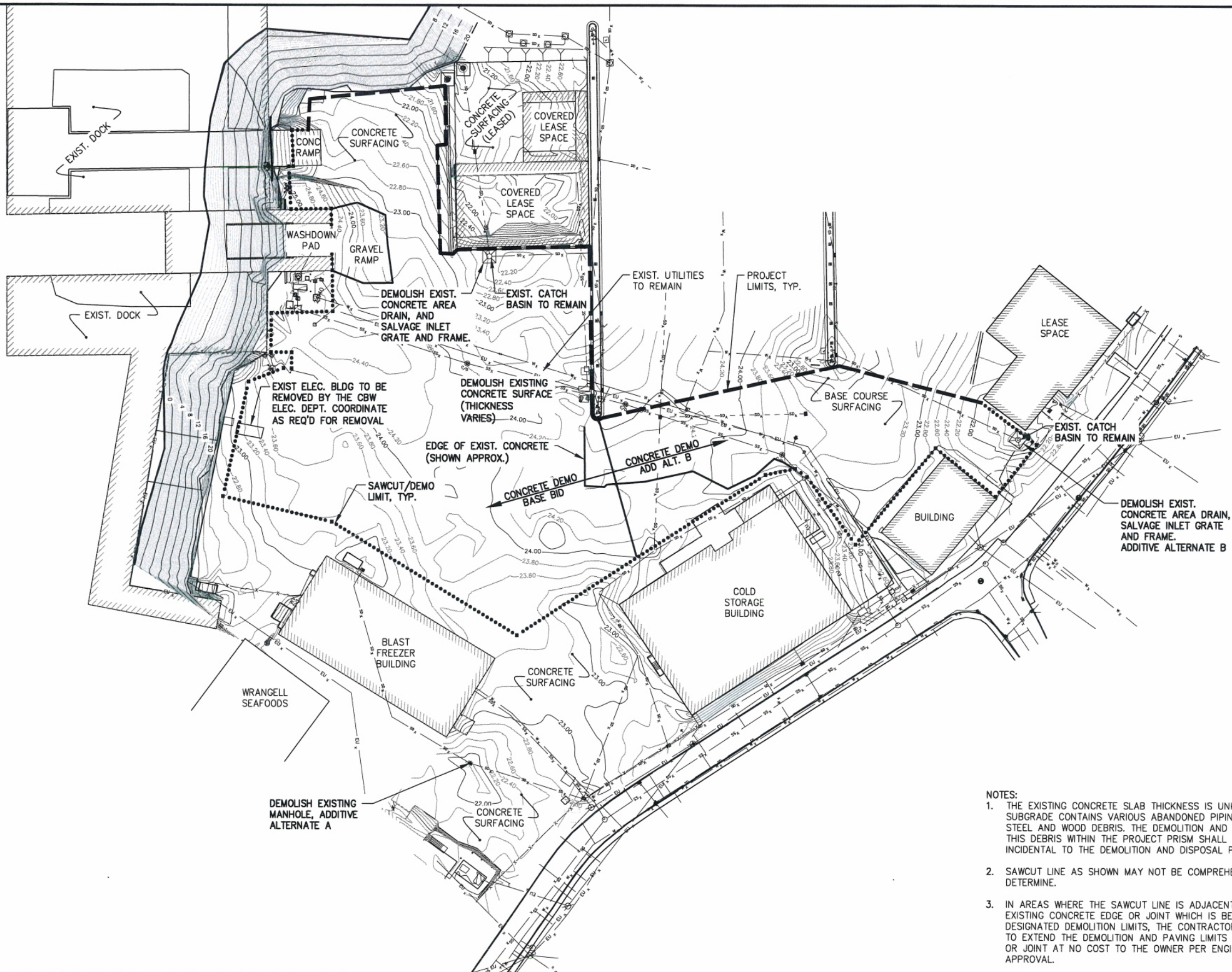


CITY AND BOROUGH OF WRANGELL, ALASKA
WRANGELL MARINE SERVICE CENTER
CONCRETE PAVING

SHEET TITLE:
EXISTING CONDITIONS AND
SURVEY CONTROL

PND PROJECT NO.: 112071.01 DWG. FILE: 1.04.DWG

1.04
SHEET
4 OF 18



- NOTES:
1. THE EXISTING CONCRETE SLAB THICKNESS IS UNKNOWN & THE SUBGRADE CONTAINS VARIOUS ABANDONED PIPING, CONCRETE, STEEL AND WOOD DEBRIS. THE DEMOLITION AND DISPOSAL OF THIS DEBRIS WITHIN THE PROJECT PRISM SHALL BE CONSIDERED INCIDENTAL TO THE DEMOLITION AND DISPOSAL PAY ITEM.
 2. SAWCUT LINE AS SHOWN MAY NOT BE COMPREHENSIVE, FIELD DETERMINE.
 3. IN AREAS WHERE THE SAWCUT LINE IS ADJACENT TO AN EXISTING CONCRETE EDGE OR JOINT WHICH IS BEYOND THE DESIGNATED DEMOLITION LIMITS, THE CONTRACTOR MAY ELECT TO EXTEND THE DEMOLITION AND PAVING LIMITS TO THAT EDGE OR JOINT AT NO COST TO THE OWNER PER ENGINEER APPROVAL.

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REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.

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SCALE: SCALE IN FEET
0 40 80 FT.

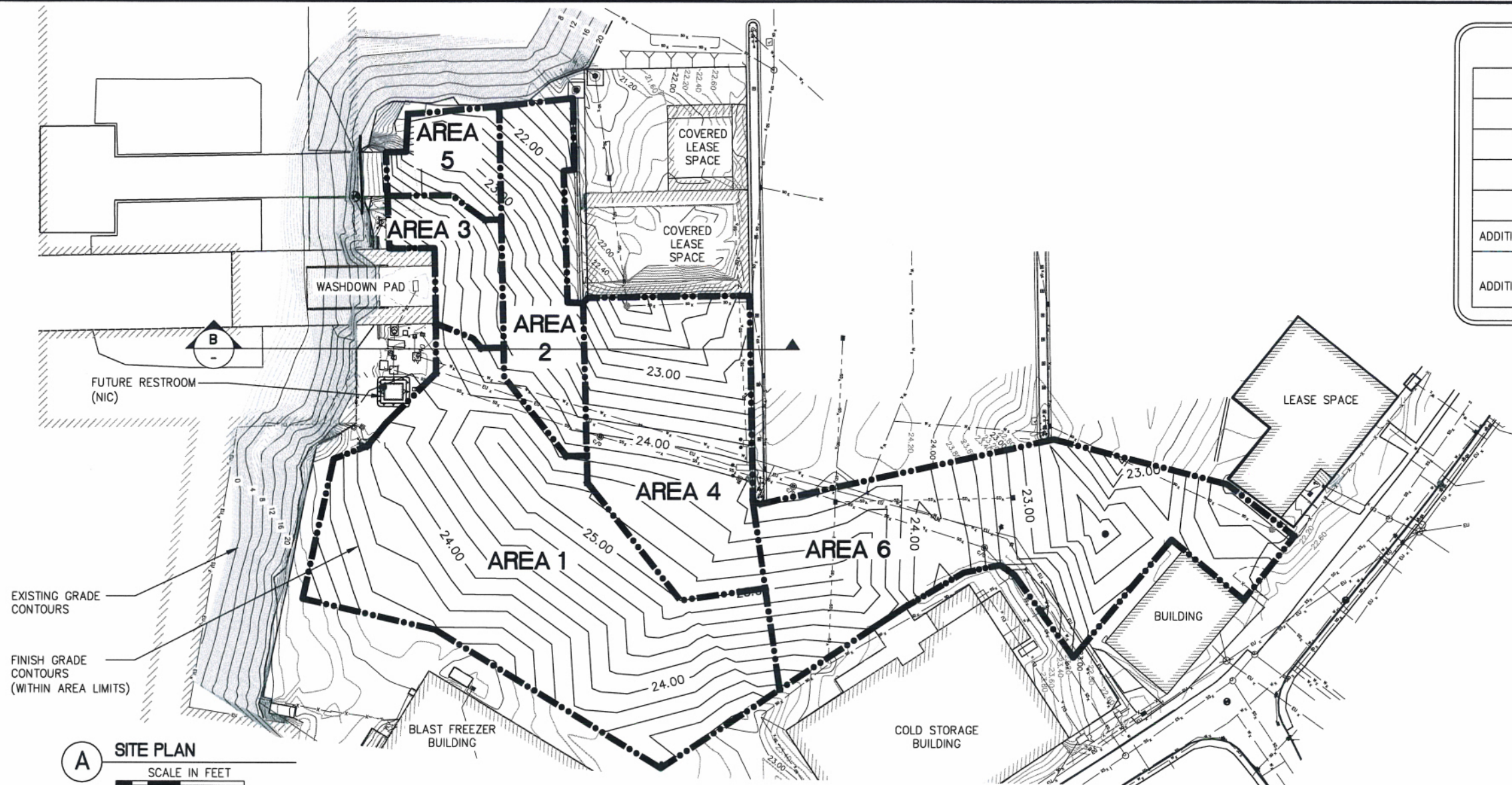


CITY AND BOROUGH OF WRANGELL, ALASKA
WRANGELL MARINE SERVICE CENTER
CONCRETE PAVING

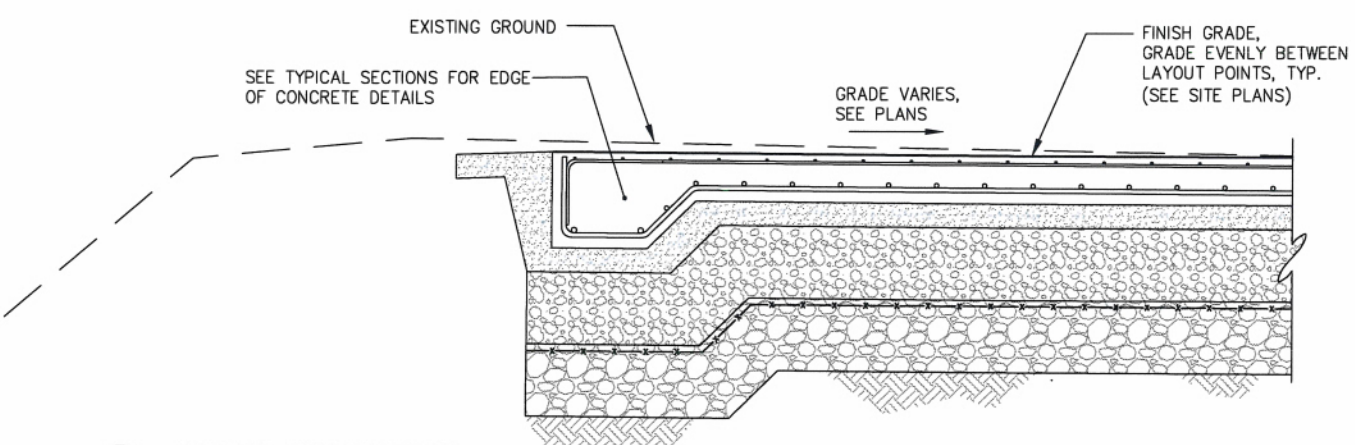
SHEET TITLE:
DEMOLITION SITE PLAN

PND PROJECT NO. 112071.01 DWG. FILE: 1.05.DWG

1.05
SHEET
5 OF 18

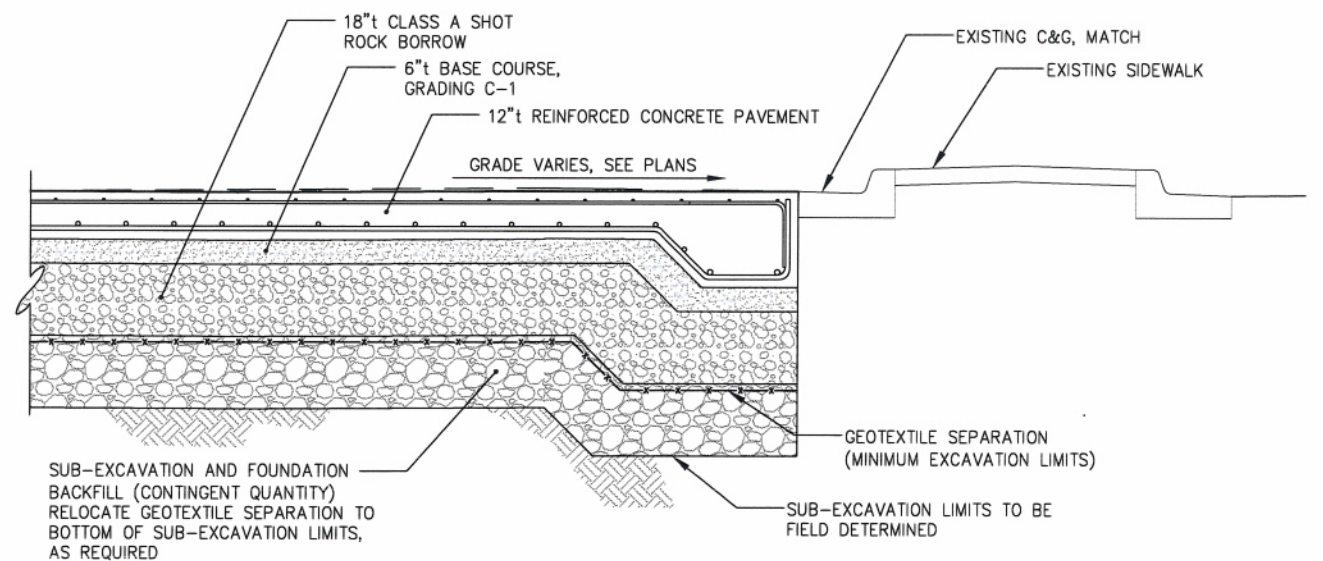


A SITE PLAN
SCALE IN FEET
0 40 80 FT.



B GENERAL SITE SECTION
NTS

NOTE: SEE TYPICAL SECTIONS FOR DETAILS.



SEQUENCE DATES

AREA 1	NTP - JULY 1
AREA 2	JULY 1 - AUGUST 1
AREA 3	AUGUST 1 - SEPTEMBER 1
AREA 4	AUGUST 17 - SEPTEMBER 14
AREA 5	SEPTEMBER 14 - OCTOBER 15
ADDITIVE ALTERNATE A	OCTOBER 1 - OCTOBER 15
AREA 6 ADDITIVE ALTERNATE B	OCTOBER 15 - NOVEMBER 15

REVISIONS

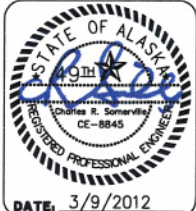
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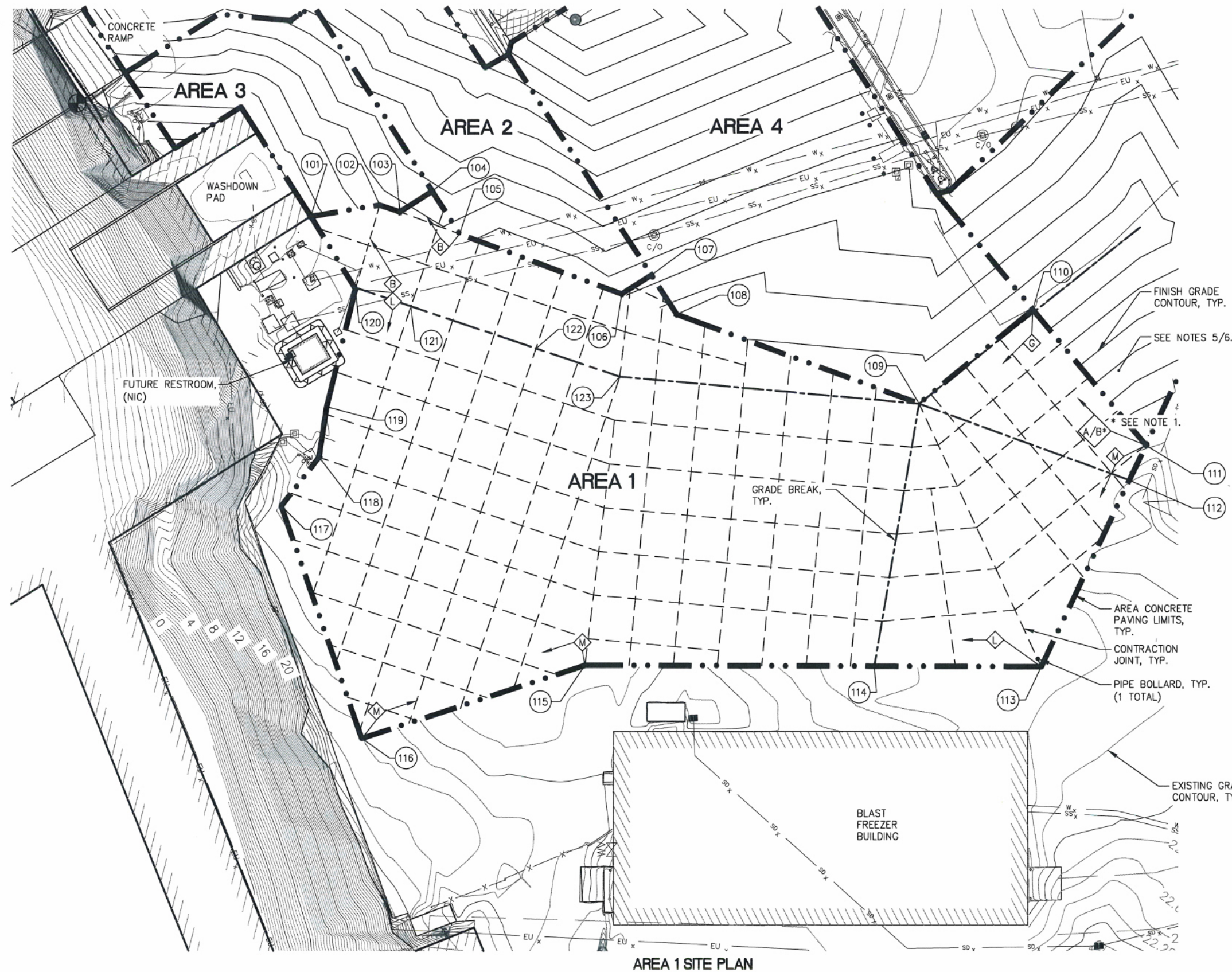


**CITY AND BOROUGH OF WRANGELL, ALASKA
WRANGELL MARINE SERVICE CENTER
CONCRETE PAVING**

SHEET TITLE:
**CONSTRUCTION SEQUENCE & OVERALL
GRADING CONTOURS SITE PLAN**

PND PROJECT NO.: 112071.01 DWG. FILE: 2.01-2.15.DWG

2.01
SHEET
6 OF 18



LAYOUT TABLE

PT #	NORTHING	EASTING	ELEVATION	DESCRIPTOR
101	8766.32	10781.19	24.47±	ME, EOCP
102	8769.91	10806.19	24.09	GRADE PT
103	8767.23	10813.46	24.06	GRADE PT
104	8774.52	10825.38	23.85	GRADE PT
105	8758.72	10834.95	24.11	GRADE PT
106	8735.59	10893.33	24.38	GRADE PT
107	8742.22	10904.25	24.34	GRADE PT
108	8727.75	10913.13	24.70	GRADE PT
109	8693.19	11000.37	25.00	GB, GRADE PT
110	8726.37	11042.29	25.00	GB, GRADE PT
111	8676.05	11082.13	23.55±	ME, EOCP
112	8663.52	11075.87	23.30±	ME, EOCP
113	8596.45	11042.50	23.52±	GRADE PT, EOCP
114	8598.07	10982.03	23.72±	ME, EOCP
115	8600.88	10877.17	23.37±	ME, EOCP
116	8576.12	10795.71	22.59±	ME, EOCP
117	8661.28	10768.41	23.26±	ME, EOCP
118	8678.67	10782.41	23.86±	ME, EOCP
119	8697.03	10785.52	24.18±	ME, EOCP
120	8739.66	10796.85	24.50	GB, GRADE PT, EOCP
121	8732.79	10816.79	24.50	GB, GRADE PT
122	8716.51	10861.91	25.00	GB, GRADE PT
123	8705.60	10891.99	25.00	GB, GRADE PT

- NOTES:
- SECTION A/2.07 SHALL BE UTILIZED IF THE BASE BID IS AWARDED WITHOUT ADDITIVE ALTERNATE B. IF ADDITIVE ALTERNATE B IS AWARDED THEN SECTION B/2.07 SHALL BE UTILIZED.
 - JOINT LAYOUT SHOWN APPROXIMATE. SUBMIT PAVE PLAN INDICATING CONTRACTION JOINT LAYOUT BASED ON 16'x16' MAXIMUM GRID. CONSTRUCTION JOINTS ARE INTENDED TO BE UTILIZED AT AREA BOUNDARIES PER THE SITE PLAN AND MAY REPLACE CONTRACTION JOINTS ON A LIMITED BASIS AS REQUIRED. INDICATE ANTICIPATED CONSTRUCTION JOINTS IN PAVE PLAN. SUBMIT PLAN FOR ENGINEER APPROVAL PRIOR TO BEGINNING WORK. TYPICAL ALL AREAS.
 - ALL CONTRACTION JOINTS SHALL BE TOOLED PER DETAIL P. SAWCUTTING OF JOINTS SHALL BE PERMITTED ONLY AT CONSTRUCTION JOINTS AND BETWEEN AREAS. JOINTS SHALL BE SEALED PER THE RESPECTIVE JOINT SEAL DETAIL. TYPICAL ALL AREAS.
 - PIPE BOLLARD SHOWN APPROX. COORDINATE WITH OWNER FOR FINAL LOCATION.
 - IF BASE BID IS AWARDED WITHOUT ADDITIVE ALTERNATE B, BASE COURSE GRADING C-1 FILL SHALL BE REQUIRED PER DETAIL A/2.07 OVER EXISTING GRADE WITHIN THE LIMITS SHOWN AND TO GRADING POINT ELEVATIONS ON SHEET 2.05 LAYOUT TABLE.
 - IF ADDITIVE ALTERNATE B IS AWARDED, BASE COURSE GRADING C-1 FILL SHALL BE REQUIRED TEMPORARILY TO MAINTAIN BOATYARD OPERATIONS PER SPECIFICATIONS.

AREA 1 SITE PLAN

REVISIONS				
REV.	DATE	DESCRIPTION	DWN.	CKD.

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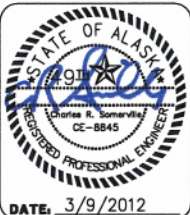
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DESIGN: PLR
DRAWN: LRG

CHECKED: BMI
APPROVED: CRS

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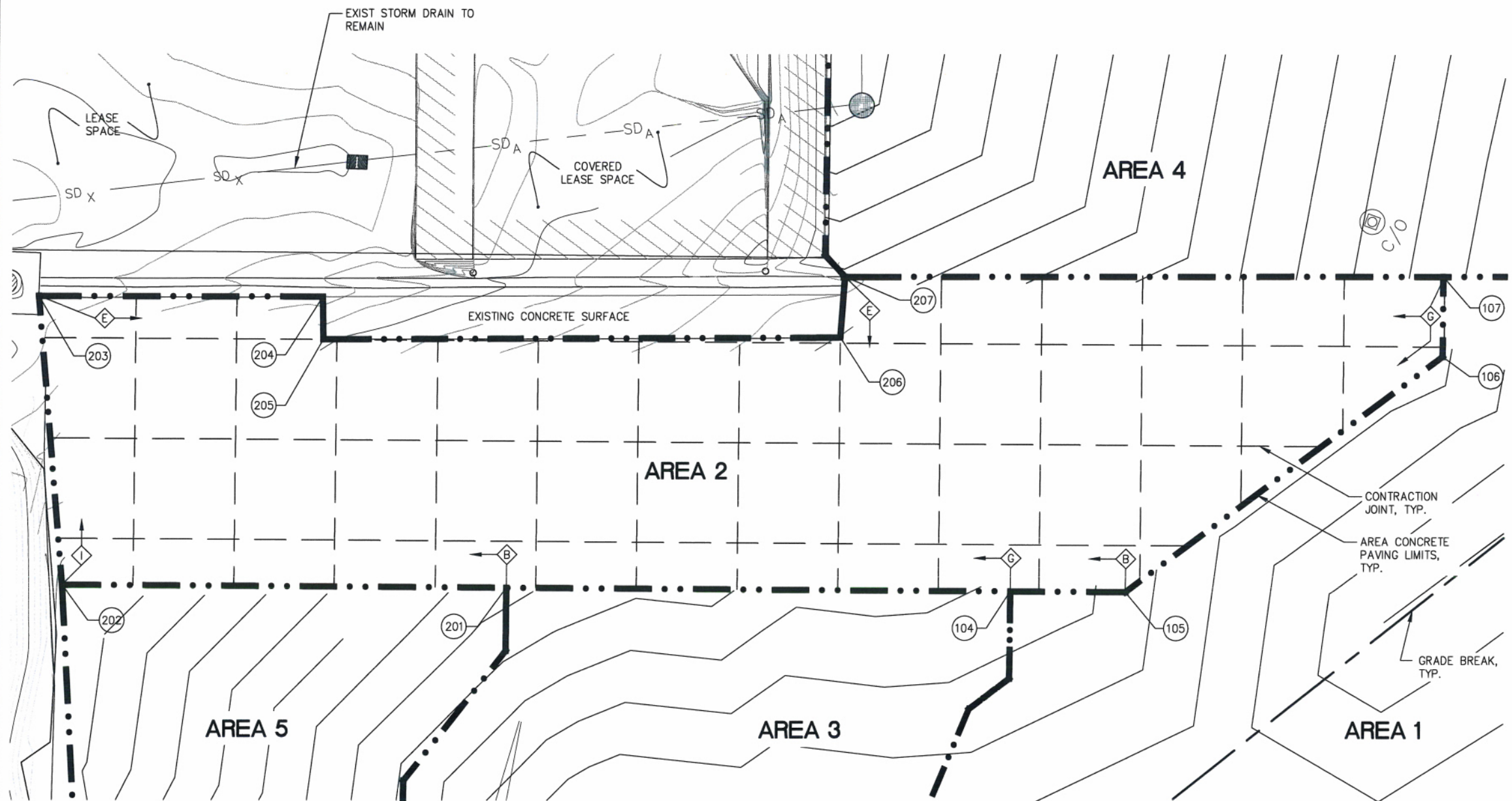
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SHEET TITLE:
AREA 1 SITE PLAN

2.02
SHEET OF 18

DATE: 3/9/2012

PND PROJECT NO. 112071.01 DWG. FILE 2.01-2.15.DWG



AREA 2 SITE PLAN

LAYOUT TABLE

PT #	NORTHING	EASTING	ELEVATION	DESCRIPTOR
104	8774.52	10825.38	23.85	GRADE PT
105	8758.72	10834.95	24.11	GRADE PT
106	8735.59	10893.33	24.38	GRADE PT
107	8742.22	10904.25	24.34	GRADE PT
201	8842.84	10783.85	23.32	GRADE PT
202	8903.13	10747.22	22.00	GRADE PT, EOCP
203	8930.79	10784.31	21.13±	ME, EOCP
204	8892.62	10807.46	21.52±	ME, EOCP
205	8888.66	10802.13	21.95±	ME, EOCP
206	8818.85	10845.60	23.01±	ME, EOCP
207	8823.38	10854.17	22.82±	ME, EOCP

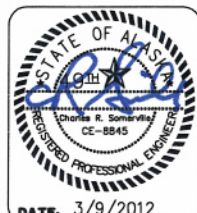
REVISIONS					
REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.

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DESIGN: PLR CHECKED: BMI
DRAWN: LRG APPROVED: CRS

SCALE: 0 10 20 FT.
SCALE IN FEET



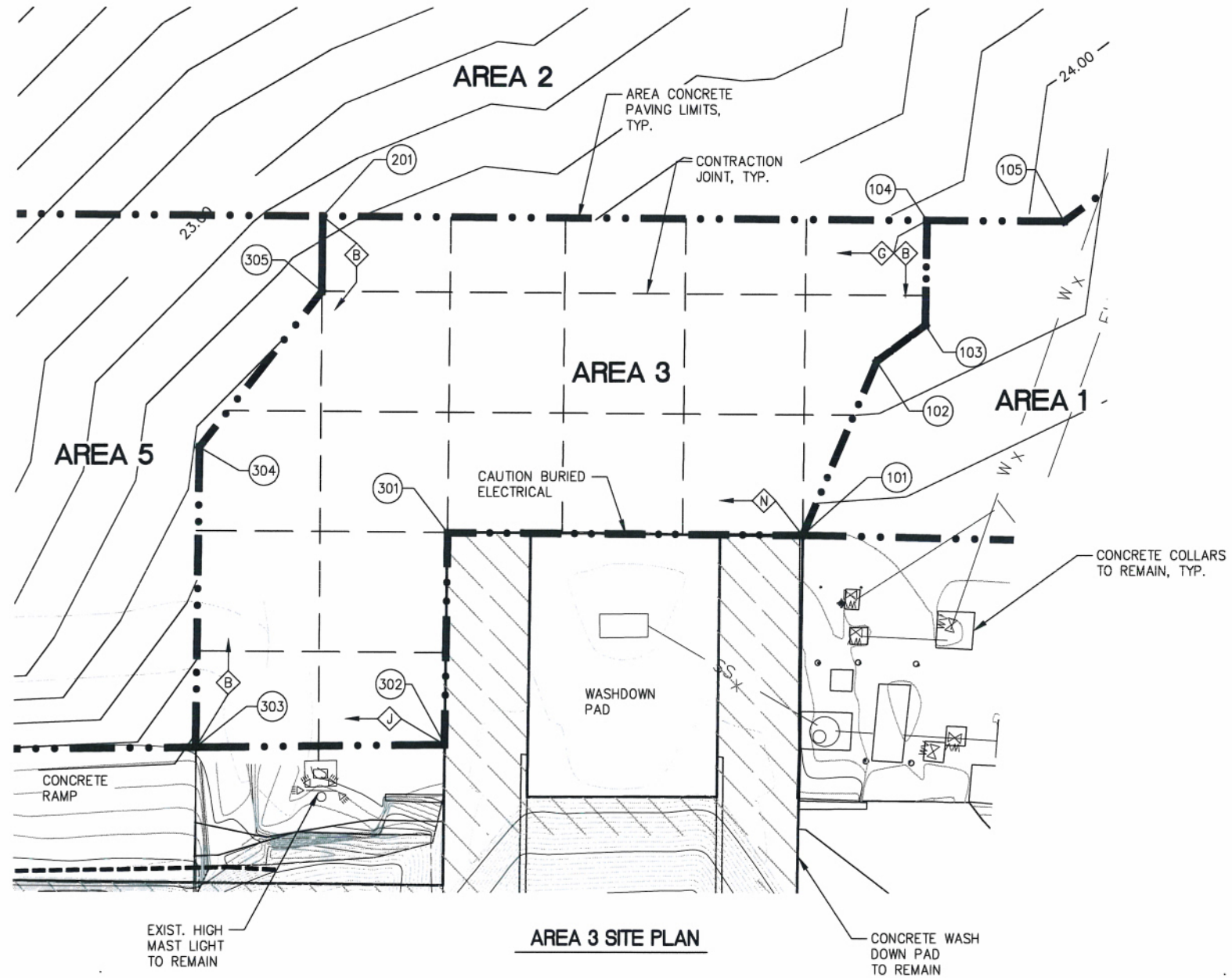
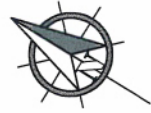
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SHEET TITLE:
AREA 2 SITE PLAN

DATE: 3/9/2012

PHD PROJECT NO.: 112071.01 DWG. FILE: 2.01-2.15.DWG

2.03
SHEET
8 OF 18



LAYOUT TABLE				
PT #	NORTHING	EASTING	ELEVATION	DESCRIPTOR
101	8766.32	10781.19	24.47±	ME, EOCP
102	8769.91	10806.19	24.09	GRADE PT
103	8767.23	10813.46	24.06	GRADE PT
104	8774.52	10825.38	23.85	GRADE PT
105	8758.72	10834.95	24.11	GRADE PT
201	8842.84	10783.85	23.32	GRADE PT
301	8806.56	10756.69	24.58±	ME, EOCP
302	8791.99	10732.54	25.14±	ME, EOCP
303	8819.96	10714.86	24.27±	ME, EOCP
304	8840.50	10749.18	23.62	GRADE PT
305	8837.63	10775.27	23.56	GRADE PT

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SCALE: SCALE IN FEET
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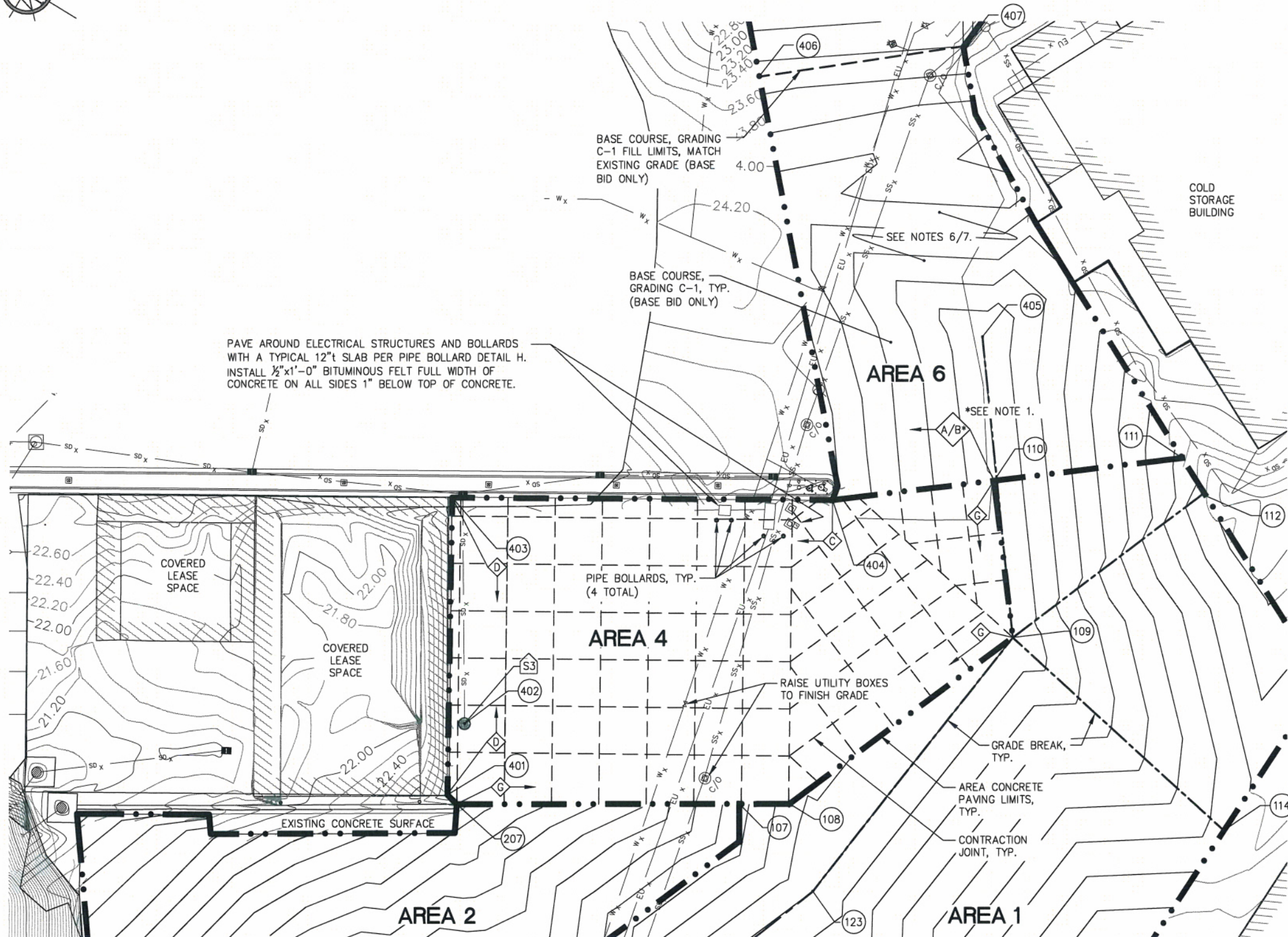
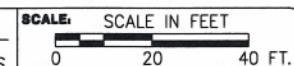
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SHEET TITLE:
AREA 3 SITE PLAN

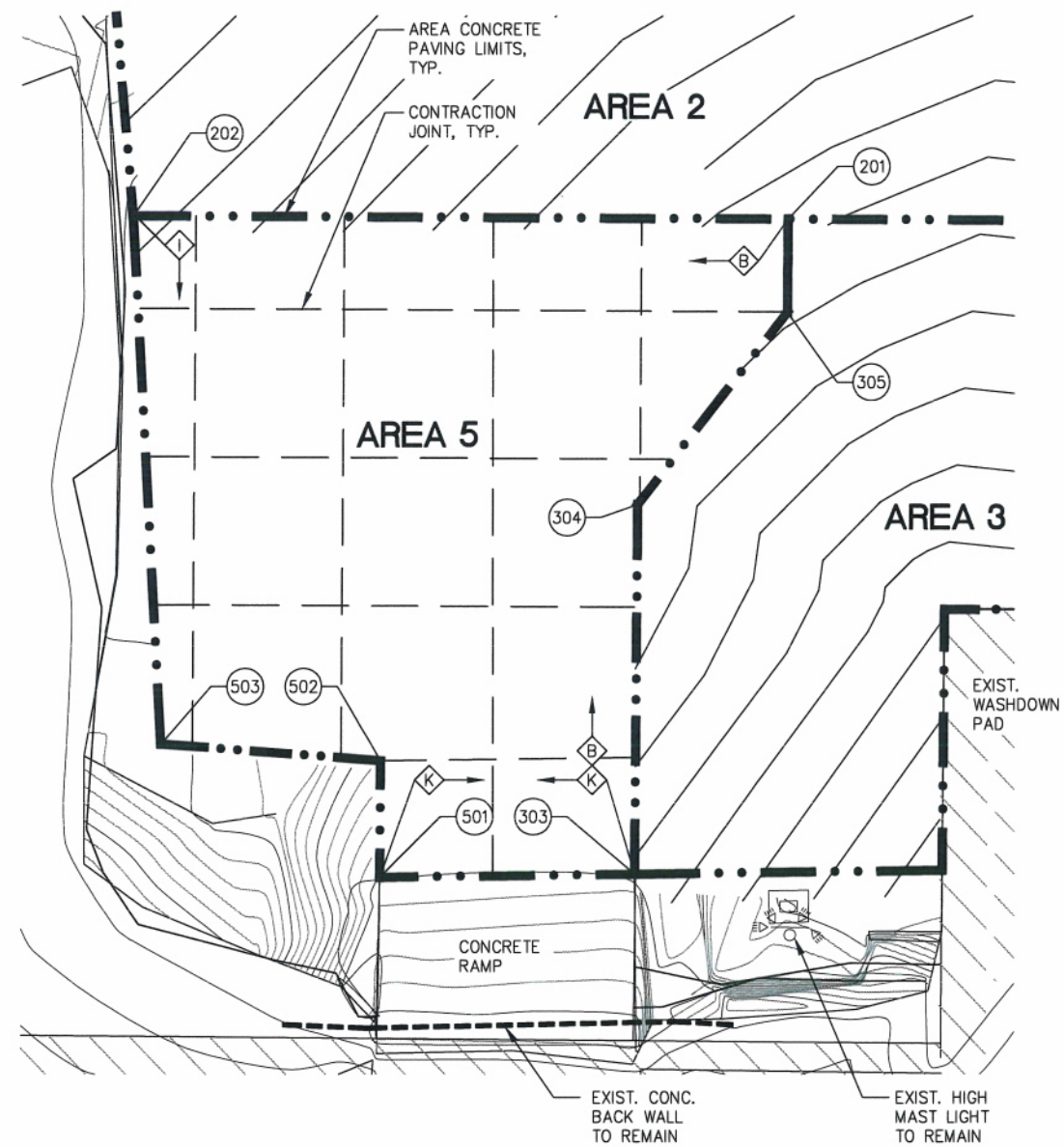
DATE: 3/9/2012

PHD PROJECT NO.: 112071.01 DWG. FILE: 2.01-2.15.DWG

2.04
SHEET
9 OF 18

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PND PROJECT NO. 112071.01 DWG. FILE: 2.01-2.15.DWG



AREA 5 SITE PLAN

LAYOUT TABLE

PT #	NORTHING	EASTING	ELEVATION	DESCRIPTOR
201	8842.84	10783.85	23.32	GRADE PT
202	8903.13	10747.22	22.00	GRADE PT, EOCP
303	8819.96	10714.86	24.27±	ME, EOCP
304	8840.50	10749.18	23.62	GRADE PT
305	8837.63	10775.27	23.56	GRADE PT
501	8843.15	10700.21	24.27±	ME, EOCP
502	8849.68	10710.96	23.20	GRADE PT, EOCP
503	8870.64	10700.24	23.20	GRADE PT, EOCP

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SCALE: SCALE IN FEET
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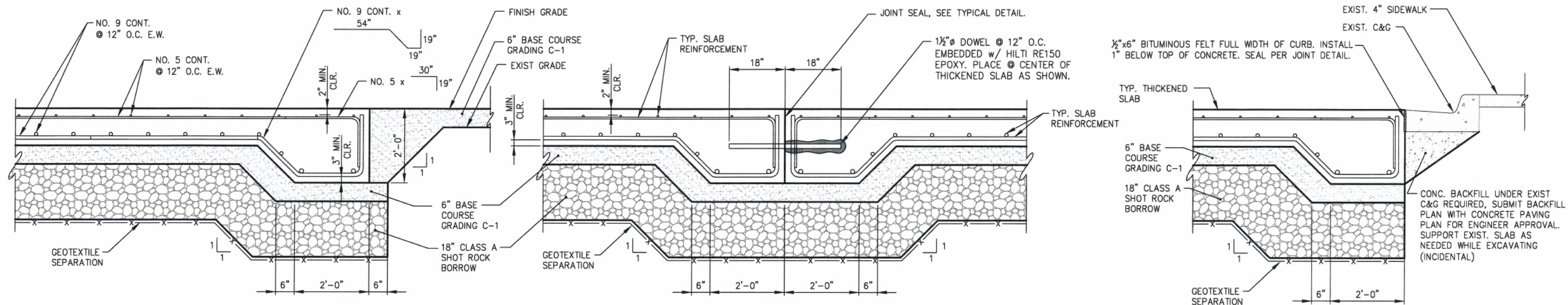
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AREA 5 SITE PLAN

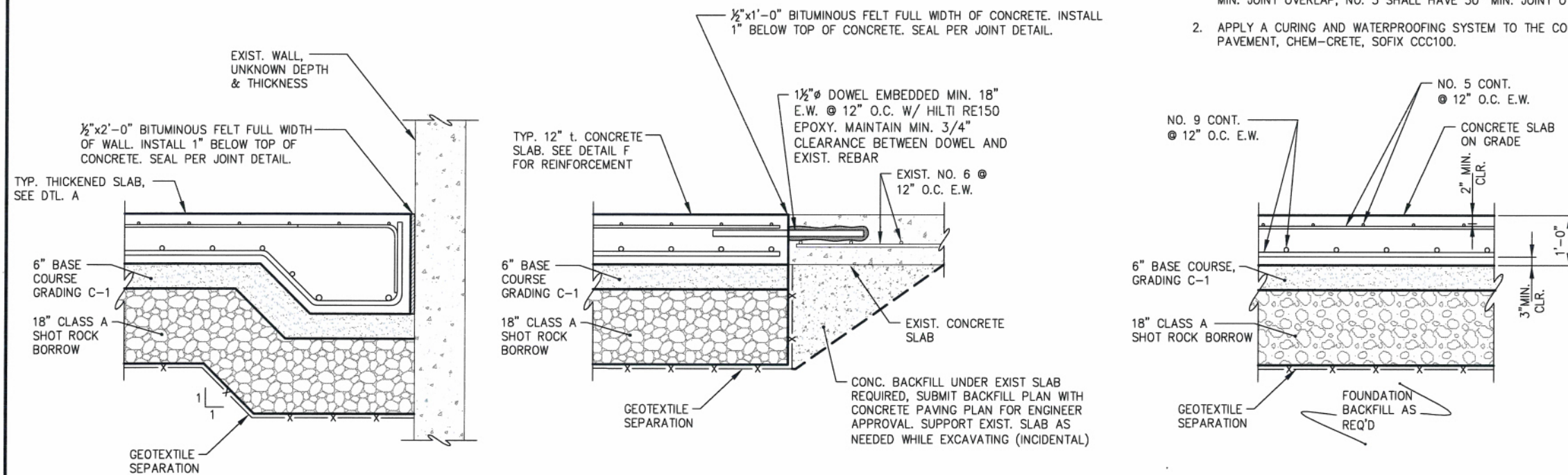
PND PROJECT NO. 112071.01 DWG. FILE 2.01-2.15.DWG

2.06

SHEET
11 OF 18



- NOTE:
1. REBAR SHALL BE CONTINUOUS. NO. 9 REBAR SHALL HAVE 54" MIN. JOINT OVERLAP, NO. 5 SHALL HAVE 30" MIN. JOINT OVERLAP.
 2. APPLY A CURING AND WATERPROOFING SYSTEM TO THE CONCRETE PAVEMENT, CHEM-CRETE, SOFIX CCC100.



REVISIONS				
REV.	DATE	DESCRIPTION	DWN.	CKD.

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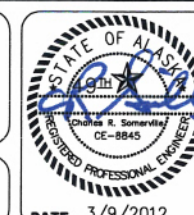
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DRAWN: APPROVED:

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SCALE: NTS



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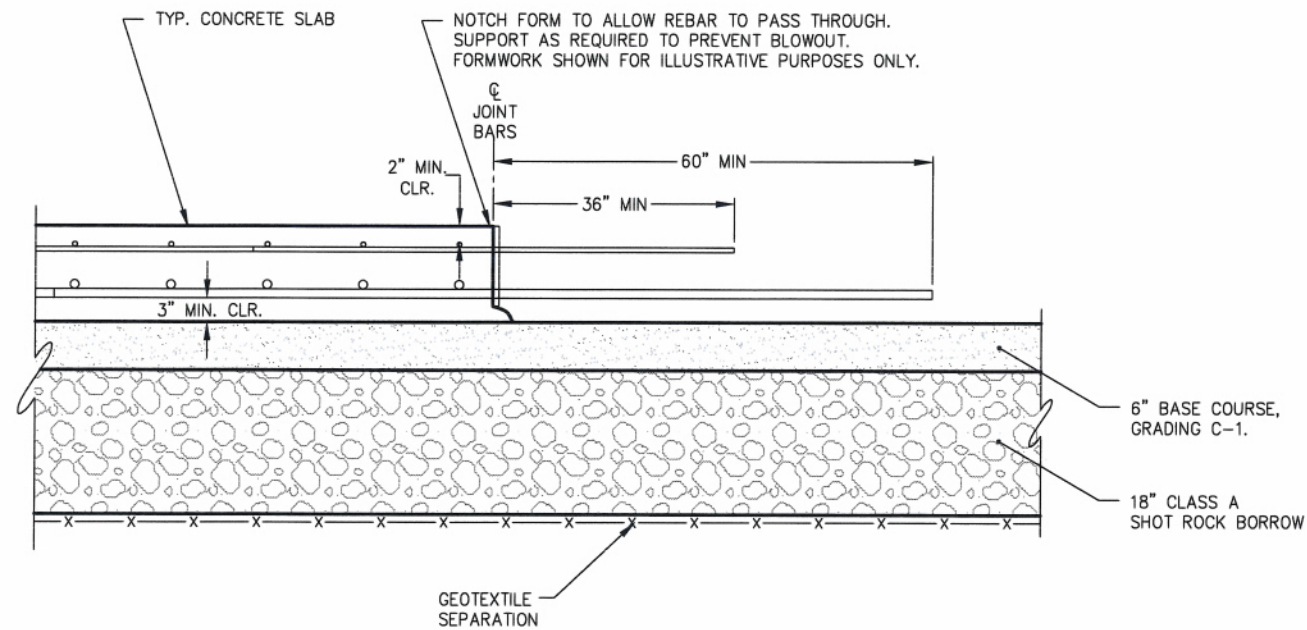
SHEET TITLE:
TYPICAL SECTIONS

PHD PROJECT NO. 112071.01 DWG. FILE: 2.08-2.09.DWG

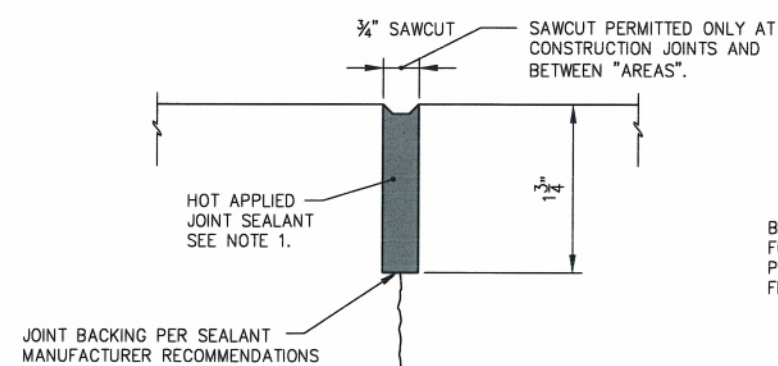
2.07

SHEET
12 OF 18

DATE: 3/9/2012

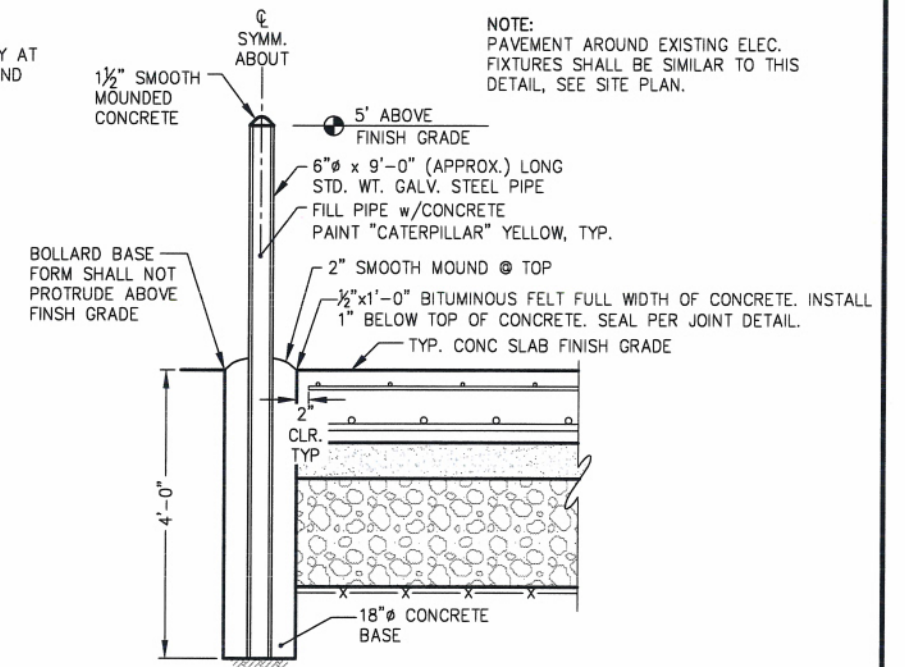


G **TYPICAL CONSTRUCTION JOINT**
LOCATE CONSTRUCTION JOINTS AS SHOWN AT "AREA" BOUNDARIES NOTED ON THE SITE PLANS AND PER THE APPROVED PAVING PLAN.

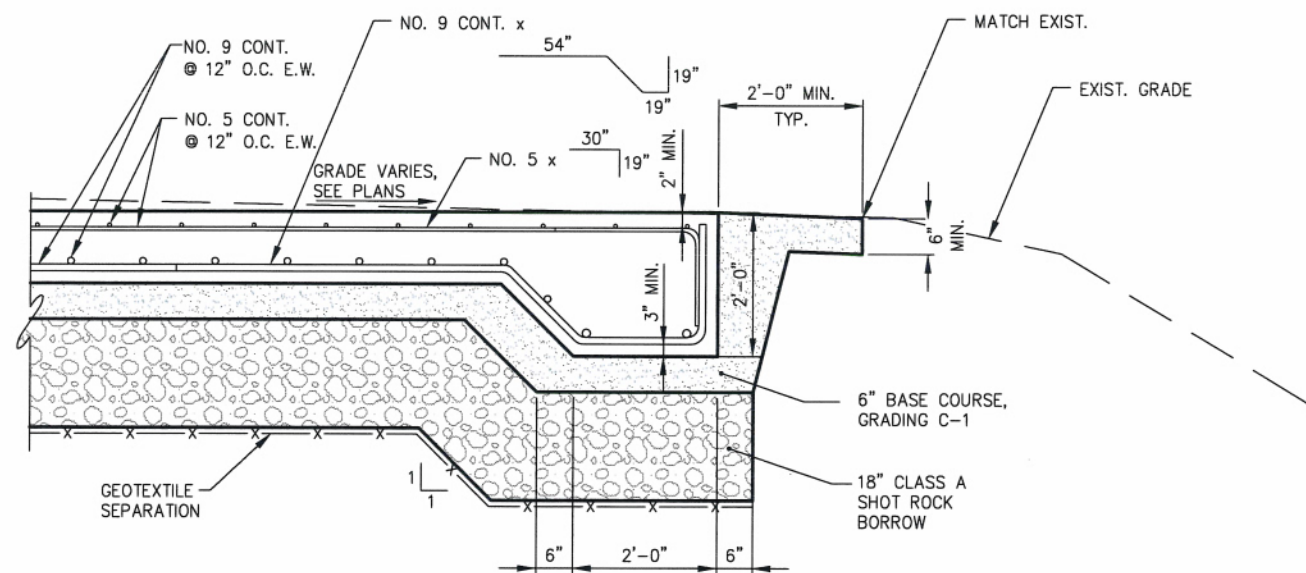


- NOTE:
1. JOINT SEALANT SHALL BE HOT APPLIED CRAFTCO, INC. ROADSAVER 221 OR APPROVED EQUAL.
 2. TOP OF SEALANT SHALL BE 1/8" TO 1/4" BELOW TOP OF PAVEMENT.

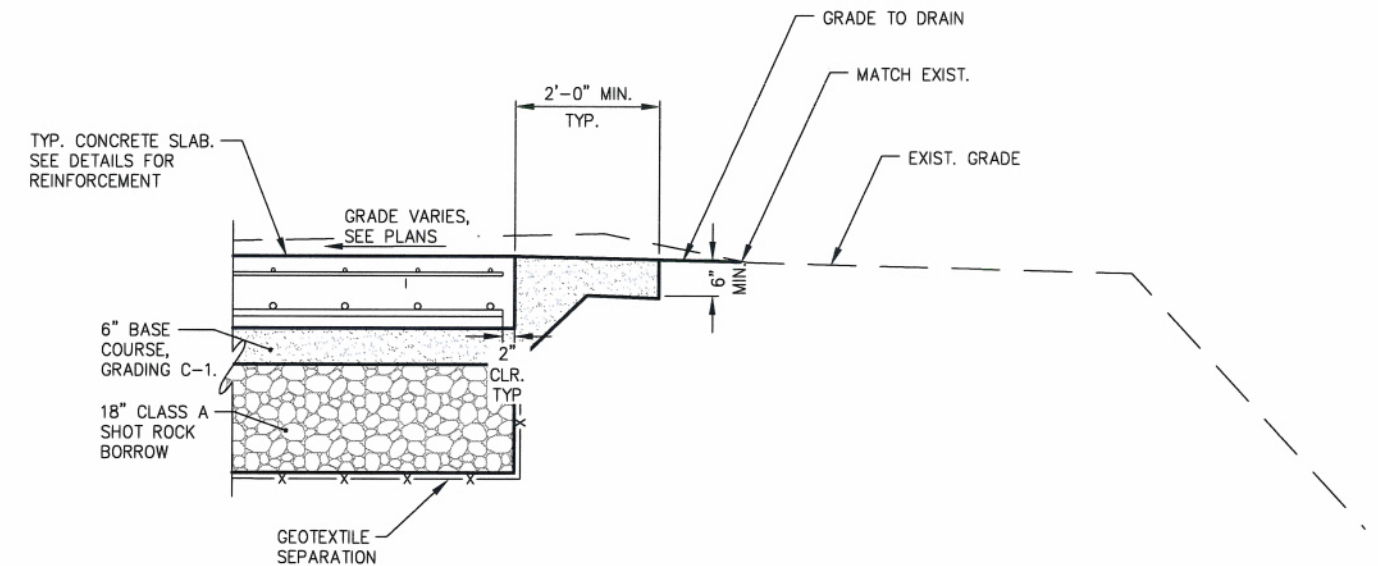
CONSTRUCTION JOINT SEAL



H **PIPE BOLLARD DETAIL**



I **THICKENED CONCRETE AT EDGE OF PAVEMENT**



J **EDGE OF PAVEMENT BETWEEN DOCKS**

REVISIONS				
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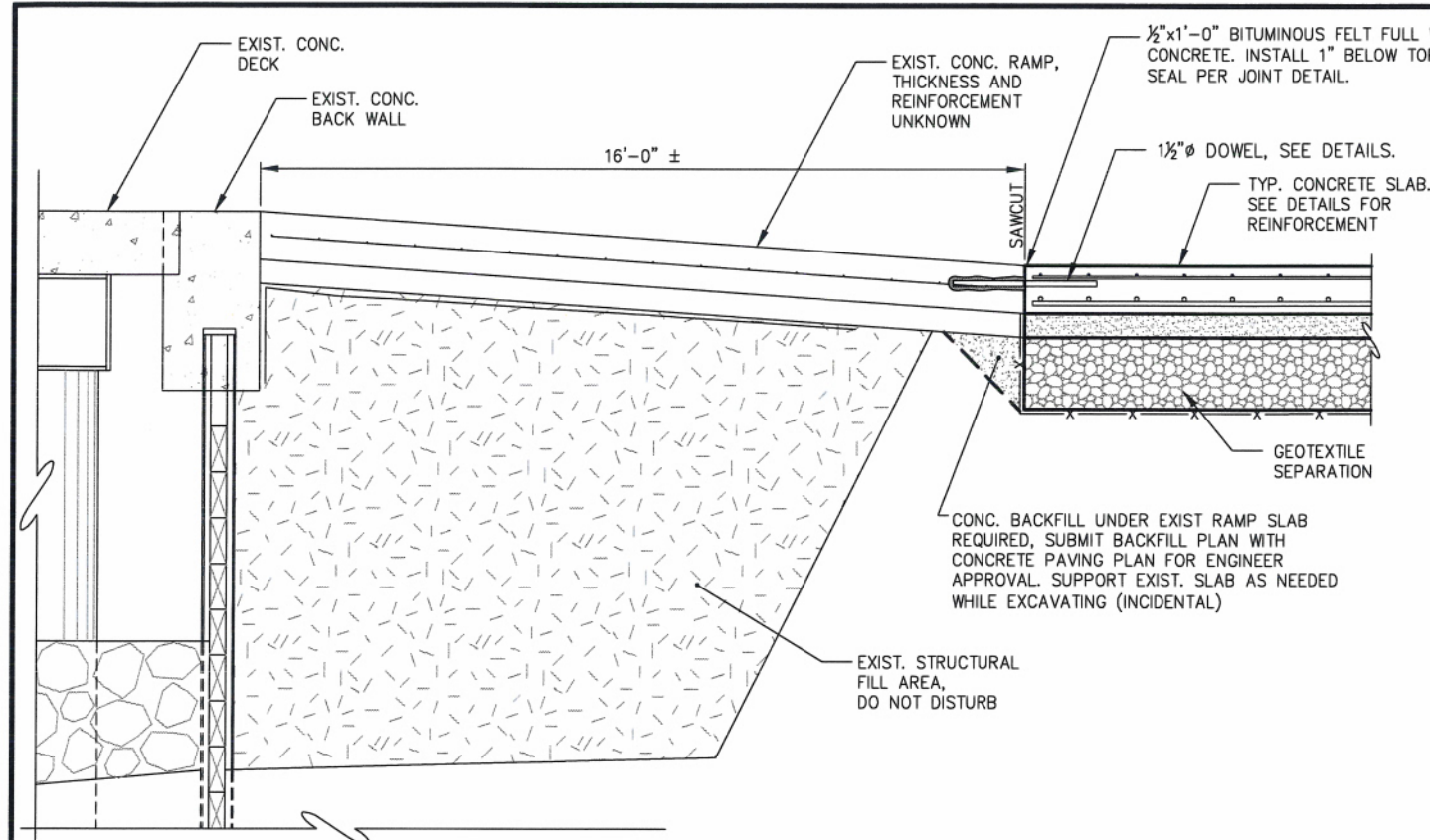


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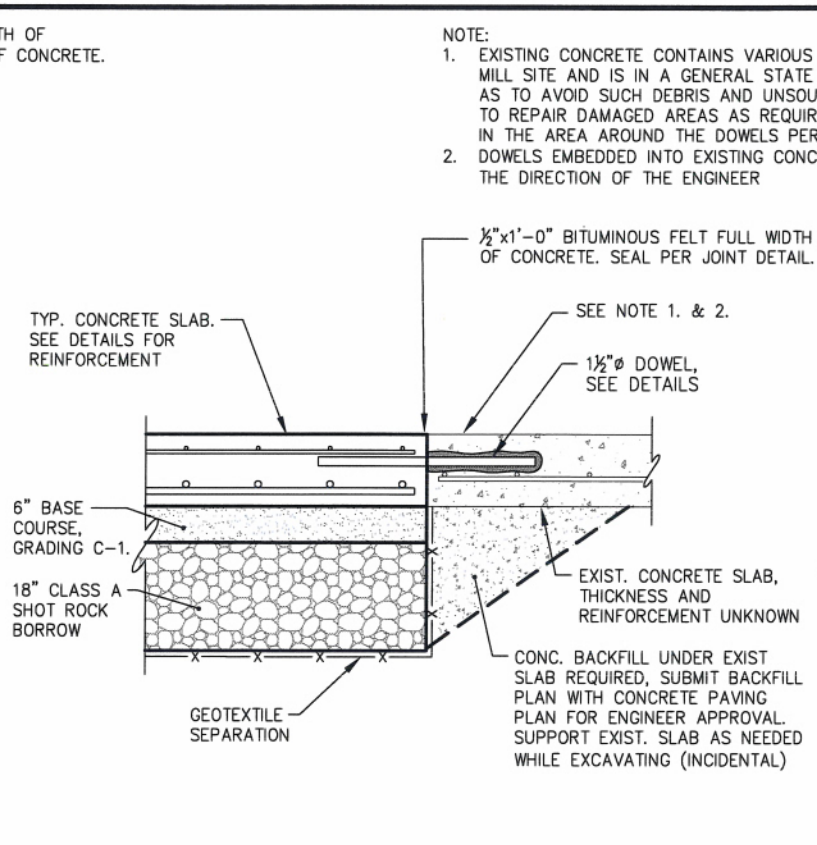
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TYPICAL SECTIONS

PND PROJECT NO. 112071.01 DWG. FILE: 2.08-2.09.DWG

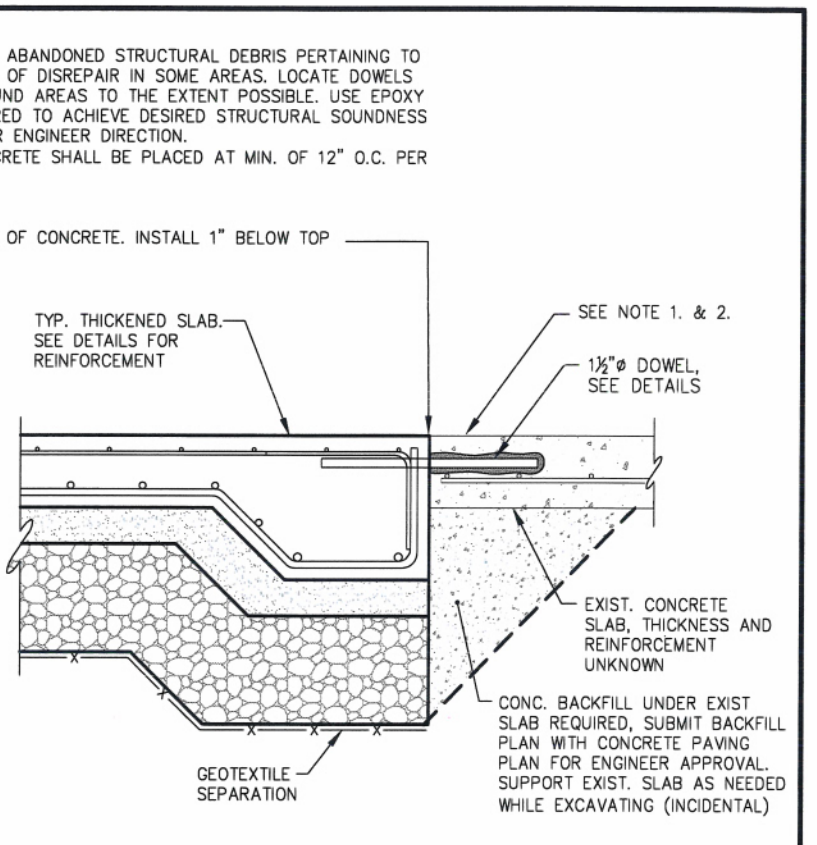
2.08
SHEET 13 OF 18



K EDGE OF PAVEMENT AT DOCK RAMP

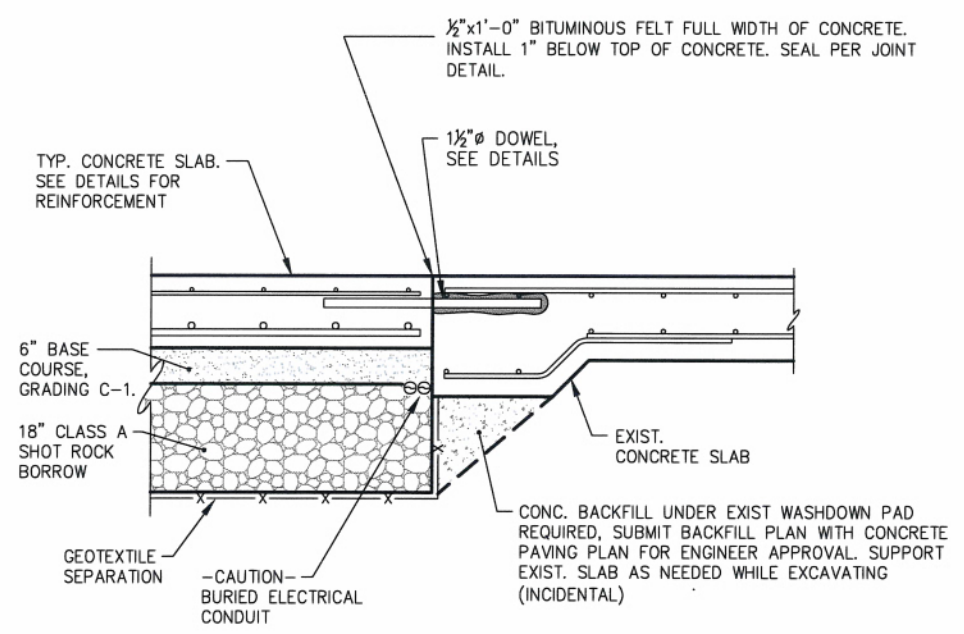


L EDGE OF PAVEMENT AT EXISTING SLAB WITH UNKNOWN REINFORCEMENT

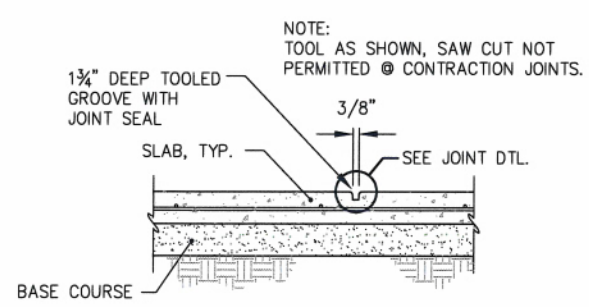


M THICKENED SLAB AT SLAB WITH UNKNOWN REINFORCEMENT

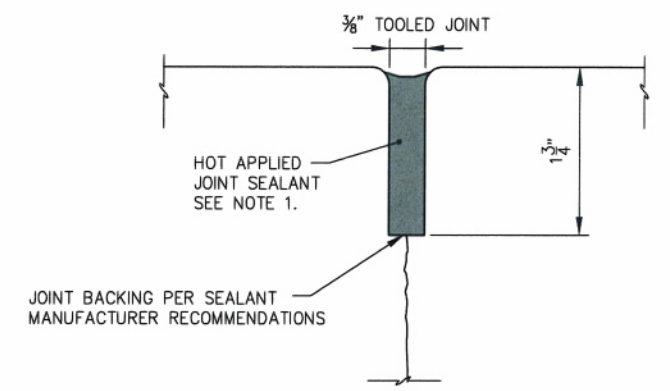
NOTE:
1. EXISTING CONCRETE CONTAINS VARIOUS ABANDONED STRUCTURAL DEBRIS PERTAINING TO MILL SITE AND IS IN A GENERAL STATE OF DISREPAIR IN SOME AREAS. LOCATE DOWELS AS TO AVOID SUCH DEBRIS AND UNSOUND AREAS TO THE EXTENT POSSIBLE. USE EPOXY TO REPAIR DAMAGED AREAS AS REQUIRED TO ACHIEVE DESIRED STRUCTURAL SOUNDNESS IN THE AREA AROUND THE DOWELS PER ENGINEER DIRECTION.
2. DOWELS EMBEDDED INTO EXISTING CONCRETE SHALL BE PLACED AT MIN. OF 12" O.C. PER THE DIRECTION OF THE ENGINEER



N EDGE OF PAVEMENT AT WASH DOWN PAD



P CONCRETE PAVEMENT - CONTRACTION JOINT



NOTE:
1. JOINT SEALANT SHALL BE HOT APPLIED CRAFTCO, INC. ROADSEAL 221 OR APPROVED EQUAL.
2. TOP OF SEALANT SHALL BE 1/8" TO 1/4" BELOW TOP OF PAVEMENT.

CONTRACTION JOINT DETAIL

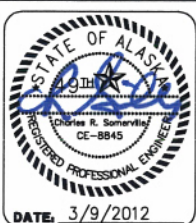
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SCALE: NTS



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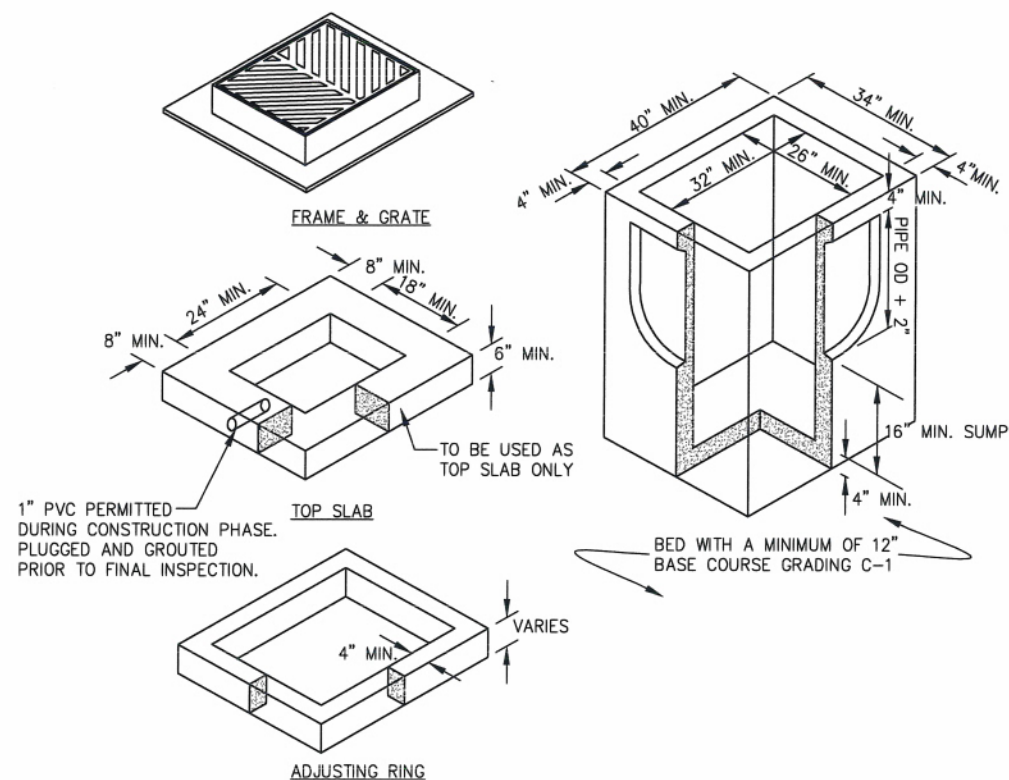
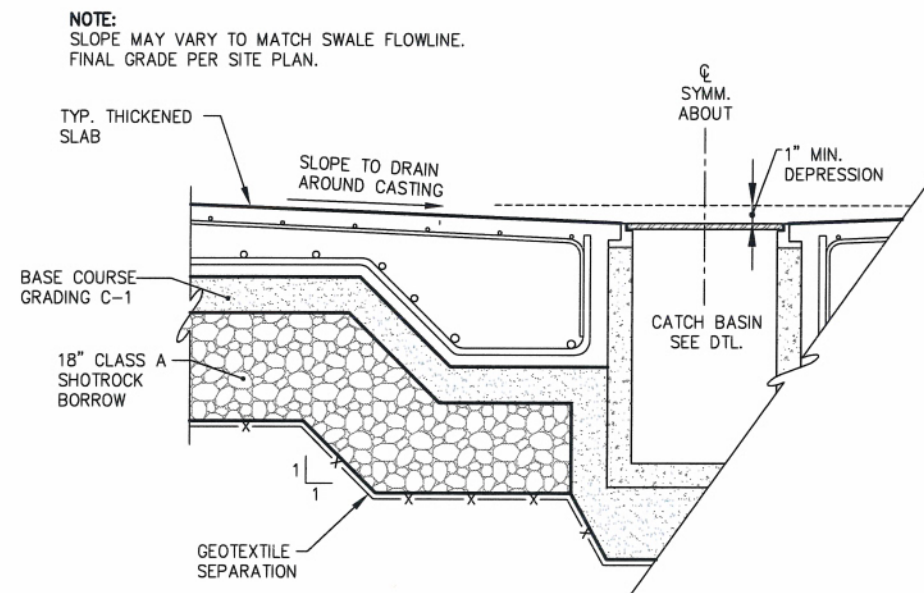
SHEET TITLE: TYPICAL SECTIONS

2.09

DATE: 3/9/2012

PND PROJECT NO.: 112071.01 DWG. FILE: 2.08-2.09.DWG

SHEET 14 OF 18



- NOTE:**
1. ALL JOINTS BETWEEN SECTIONS AND BETWEEN FRAME AND CONCRETE SECTIONS SHALL BE GROUTED INSIDE AND OUT.
 2. ENTIRE KNOCKOUT IS TO BE REMOVED AND SEALED SHUT AROUND PIPE w/ GROUT. ALL PIPES ARE TO EXTEND MIN. 1" AND MAX. 2" INTO CATCH BASIN.
 3. FRAME AND GRATE SHALL BE NEENAH R-3492-1 OR EQUAL. FRAME MAY BE CAST INTO THE TOP UNIT OR PLACED OVER THE OPENING AS APPROVED BY THE ENGINEER.
 4. CATCH BASIN SHALL MEET HIGHWAY STANDARD-25 LOAD REQUIREMENTS.
 5. MINIMUM STEEL REQUIRED AS PER ASTM C-478-69.
 6. ADJUSTING RING SHALL BE THE SAME SIZE AS THE CATCH BASIN.
 7. NO WOOD OR OTHER MATERIALS PERMITTED FOR ADJUSTING GRADE, REMOVE ANY FORM WORK.

TYPICAL CATCH BASIN

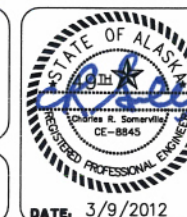
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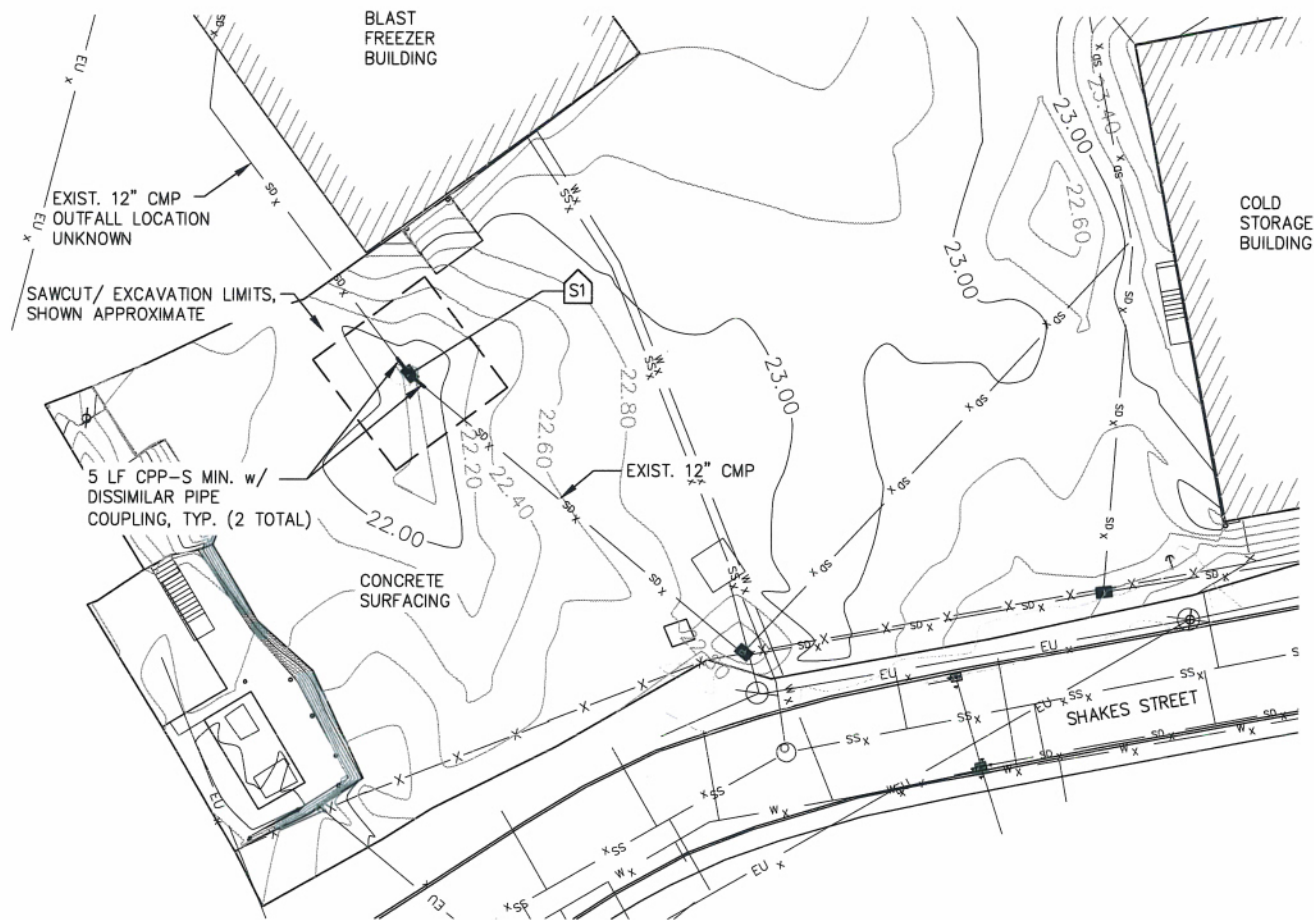


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CONCRETE PAVING**

SHEET TITLE:
STORM DRAIN DETAILS

PND PROJECT NO.: 112071.01 | DWG. FILE: 2.10.DWG

2.10
SHEET
15 OF 18

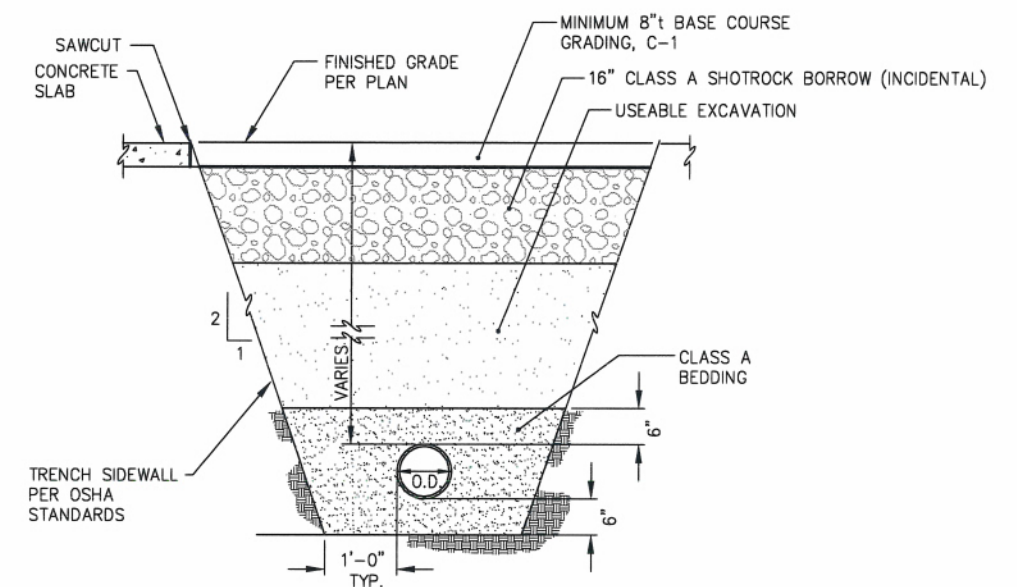


SCALE IN FEET

0 20 40 FT.

NOTE:
1. LENGTH OF CPP-S REQUIRED IS DEPENDENT UPON OWS
MANUFACTURER DESIGN INVERT ELEVATION RECOMMENDATIONS.
LENGTH SHALL BE SUFFICIENT TO MAINTAIN NEGATIVE PIPE SLOPES
IN THE DIRECTION OF FLOW BETWEEN PIPE COUPLING AND OWS.

NORTHING	8494.75
EASTING	11060.86
RIM EL.	21.75'
EXIST. OUT INV. EL.	14.40'
EXIST. IN INV. EL.	14.40'
SUMP	PER MANUF. RECOMMENDATION



NOTES:

1. TRENCH WALL SLOPE WILL VARY WITH SOIL STRENGTH AND CHARACTER.
2. O.D. = OUTSIDE DIAMETER OF PIPE.

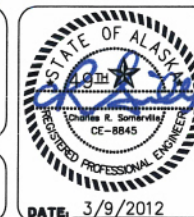
TYPICAL SECTION
STORM DRAIN

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SCALE: AS SHOWN



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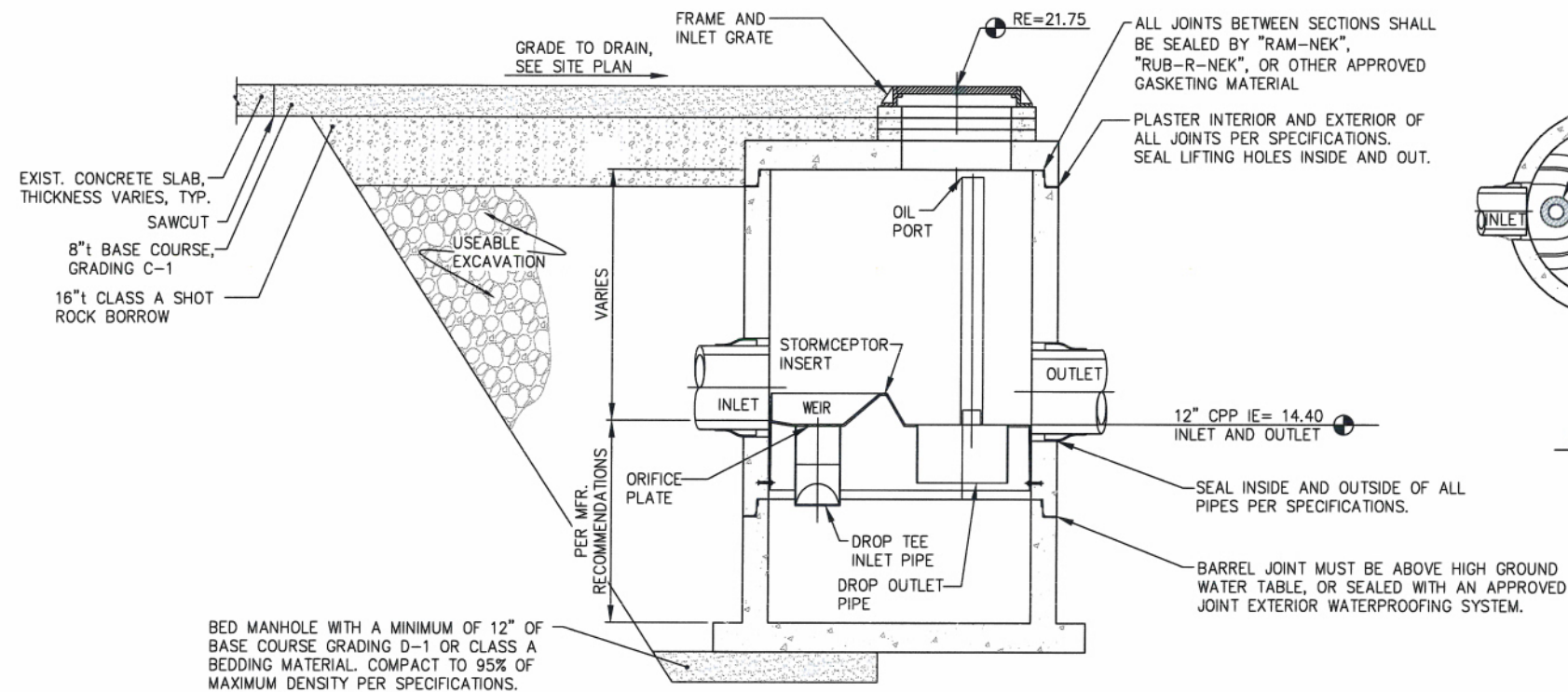
SHEET TITLE,

ADDITIVE ALTERNATE A SITE PLAN

PND PROJECT NO.: 112071.01 DWG. FILE: 2.01-2.15.DWG

2.11

SHEET
OF 18

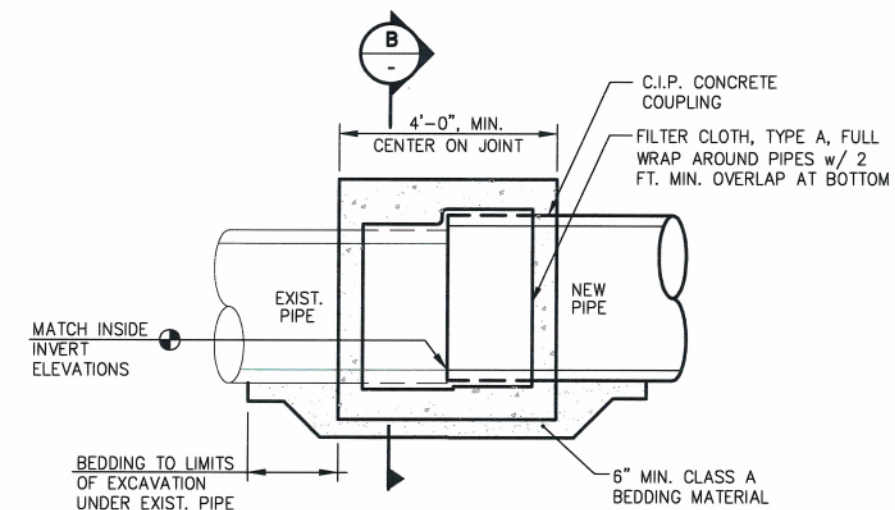


SECTION THRU CHAMBER

NOTE:

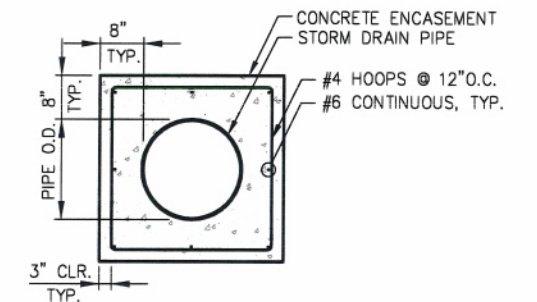
1. USE STORMCEPTOR STC 900 (900 GALLON CAPACITY), COORDINATE WITH MANUFACTURER TO MODIFY AS SHOWN.
2. DETAILS NOT SHOWN SHALL BE PER THE MANUFACTURER'S RECOMMENDATIONS.
3. SUBMIT MANHOLE WITH STORMCEPTOR INSERT SHOP DRAWINGS FOR ENGINEER APPROVAL PRIOR TO FABRICATION.
4. PIPE INVERT ELEVATIONS GIVEN ARE EQUAL TO EXISTING INVERTS. MINOR CHANGES PERMITTED ACCORDING TO MFR. RECOMMENDATIONS AND ENGINEER APPROVAL.
5. USE NO MORE THAN ONE 4" ADJUSTING RING.
6. FIELD ADJUSTMENTS LESS THAN 4" SHALL BE ON CONCRETE BRICKS SET IN A BED OF GROUT AND GROUTED INSIDE AND OUTSIDE. BRICKS ARE NOT TO PROTRUDE INTO THE MANHOLE.
7. FRAME AND GRATE SHALL BE DUCTILE IRON AND BE A TYPE THAT DOES NOT CREATE A HAZARD FOR BICYCLE TRAFFIC.
8. REFER TO A.S.T.M. C-478 FOR DESIGN REQUIREMENTS AND C-478-69 FOR MINIMUM STEEL FOR BARREL. BARREL SHALL BE IMBEDDED IN BASE SO THAT FIRST BARREL SECTION IS CONNECTED WITH BASE.
9. BLOCK OUTS MUST BE FORMED.
10. THE STORMCEPTOR SYSTEM IS PROTECTED BY ONE OR MORE OF THE FOLLOWING U.S. PATENTS: #4985148, #5498331, #5725760, #5753115, #5849181, #6068765, #6371690.

OIL WATER SEPARATOR S1
ADDITIVE ALTERNATE A



NOTE:
THIS WORK SHALL BE CONSIDERED
INCIDENTAL TO OWS INSTALLATION.

DETAIL - DISSIMILAR PIPE COUPLING



DISSIMILAR PIPE COUPLING
SECTION

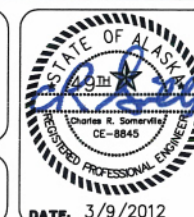
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SCALE:
NTS

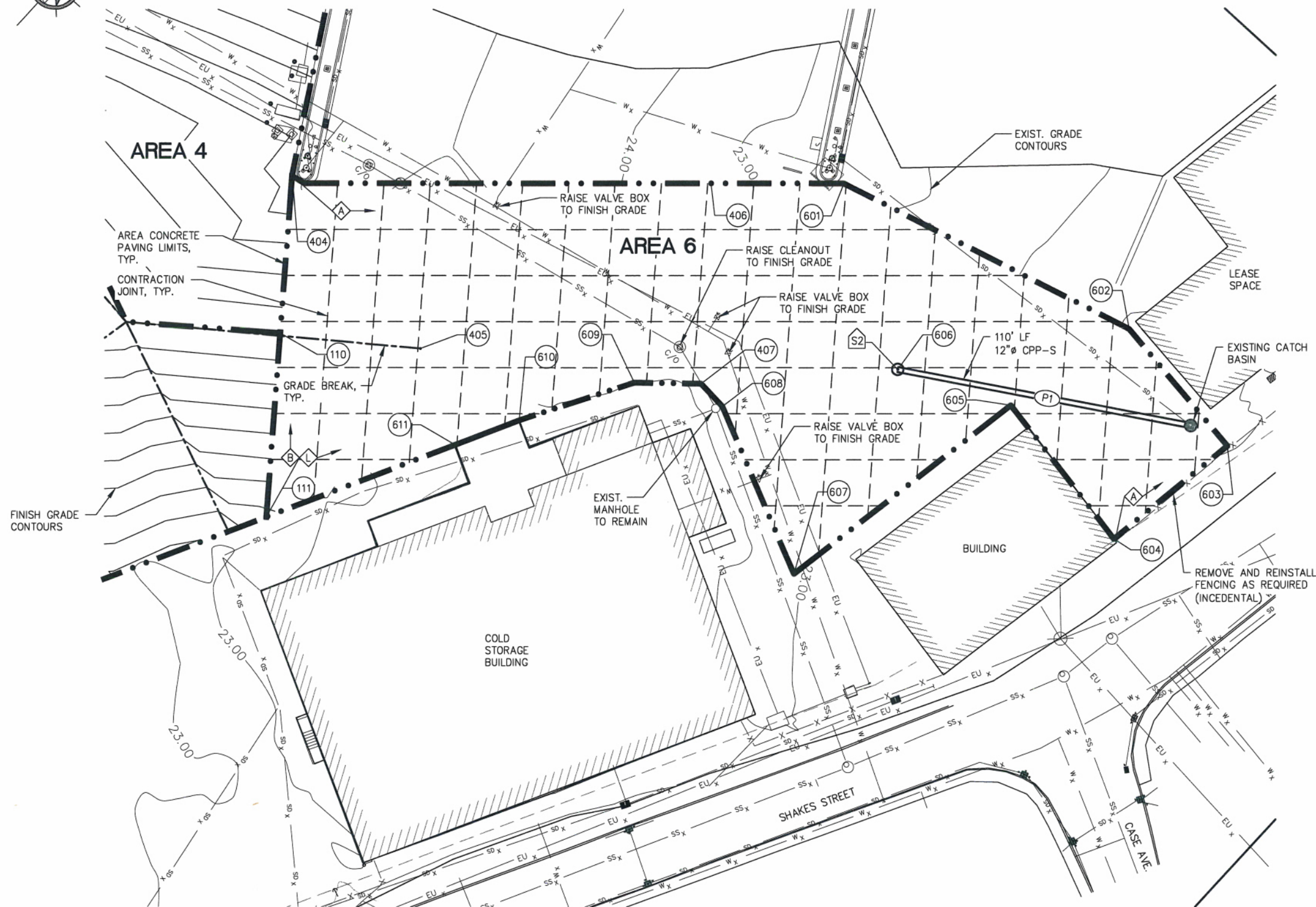


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SHEET TITLE:
ADDITIVE ALTERNATE A DETAILS

PND PROJECT NO.: 112071.01 DWG. FILE: 2.12-2.13.DWG

2.12
SHEET
17 OF 18



AREA 6 SITE PLAN
ADDITIVE ALTERNATE B

PT #	NORTHING	EASTING	ELEVATION	DESCRIPTOR
110	8726.37	11042.29	25.00	GB, GRADE PT
111	8676.05	11082.13	23.55±	ME, EOCP
404	8769.30	11008.30	24.14±	ME, EOCP
405	8755.29	11081.73	25.00	GB, GRADE PT
406	8864.78	1116.37	23.32±	ME, EOCP
407	8812.08	11161.75	23.40	ME, BCG C-1
601	8896.73	11151.23	22.40±	ME, EOCP
602	8926.45	11258.50	21.95±	ME, EOCP
603	8919.51	11311.12	21.90±	ME, EOCP
604	8869.14	11303.97	22.44±	ME, EOCP
605	8879.21	11246.15	22.72±	ME, EOCP
606	8861.87	11208.71	22.28	RIM ELEV.
607	8785.21	11230.37	23.17±	ME, EOCP
608	8811.23	11172.60	23.65±	ME, EOCP
609	8796.73	11144.45	24.00±	ME, EOCP
610	8760.09	11123.90	24.32	GRADE PT, EOCP
611	8738.73	11113.30	24.43	GRADE PT, EOCP

NORTHING: 8861.84	
EASTING: 11208.80	
RIM FG	EL= 22.28
I.E. P-1	EL= 19.30

NORTHING: 8916.1645	
EASTING: 11296.9846	
RIM FG	EL= 21.27
INV. EXIST.	EL= 18.20'
I.E. P-1	EL= 18.30'

1. CONTRACTOR TO PROVIDE EXISTING WATER VALVE BOXES AND SANITARY SEWER CLEANOUT BOXES WITH ADDITIONAL PIPE LENGTH TO RAISE TO FINISH GRADE. ANY EXTENSIONS REQUIRED SHALL BE APPROVED BY THE ENGINEER. (INCIDENTAL)

[illegible]

P | N | D
ENGINEERS, INC.

9360 Glacier Highway, Ste. 100
Juneau, Alaska 99801
Phone: 907-586-2093
Fax: 907-586-2099
www.pndengineers.com

DESIGN: PLR CHECKED: BMI
DRAWN: LRG APPROVED: CRS

SCALE: SCALE IN FEET

0 20 40 FT.



**CITY AND BOROUGH OF WRANGELL, ALASKA
WRANGELL MARINE SERVICE CENTER
CONCRETE PAVING**

SHEET TITLE:
ADDITIVE ALTERNATE B
AREA 6 SITE PLAN

PND PROJECT NO. 112071.01	DWG. FILE 2.01-2.13.DWG
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2.13
SHEET
18 OF 18