

PROJECT LOCATION



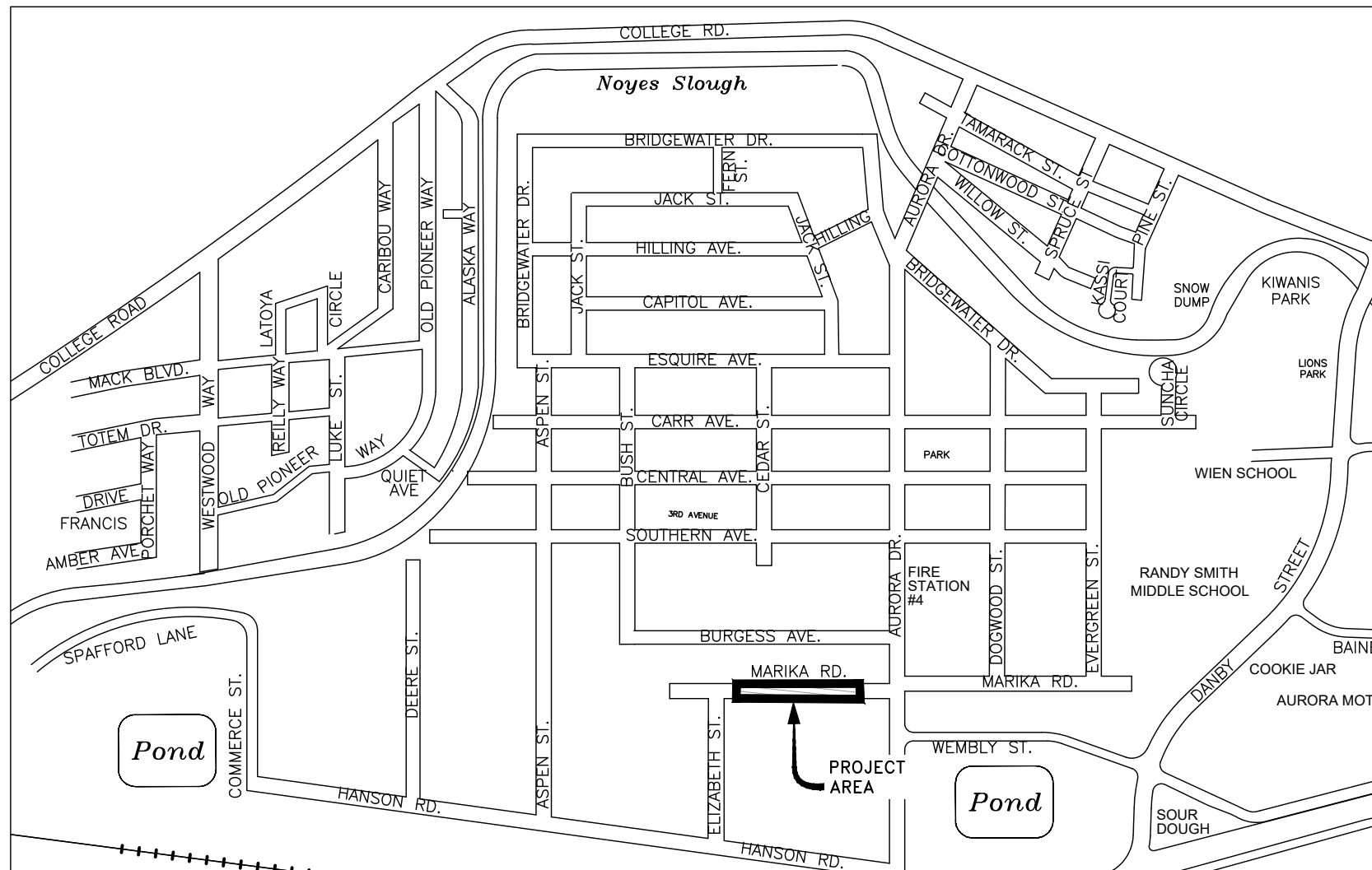
CITY OF FAIRBANKS

PROPOSED UTILITY PROJECT

ITB-24-07

MARIKA DRAINAGE IMPROVEMENTS

INDEX OF SHEETS	
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5.01	TRAFFIC CONTROL PLAN
SD1 - SD2	CITY OF FAIRBANKS STANDARD CONCRETE DETAILS - STORM DRAIN



VICINITY MAP



DATE	REVISION	BY

SCALE: NONE

DESIGNED: CLS  
 DRAWN: CLS  
 CHECKED: RHP  
 DATE: 04/26/24

APPROVED  
 \_\_\_\_\_  
 CITY ENGINEER  
 DATE

**MARIKA DRAINAGE IMPROVEMENTS**

CITY OF FAIRBANKS, ALASKA  
 Engineering Department  
 Project ITB-24-07

1.01  
 OF 9  
 SHEETS

## ESTIMATE OF QUANTITIES

ITEM NO.	PAY ITEM	PAY UNIT	QUANTITY
202.0001.0000	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LUMP SUM	ALL REQUIRED
401.0001.002B	HMA, TYPE II; CLASS B	TON	85
401.0004.0000	ASPHALT BINDER, GRADE PG 52E-40	TON	5
603.0021.0012	CORRUGATED POLYETHYLENE PIPE 12 INCH	LINEAR FOOT	480
604.0001.0000	STORM SEWER MANHOLE, 48 INCH	EACH	3
604.0003.0000	RECONSTRUCT EXISTING MANHOLE	EACH	1
604.0010.0000	RECONSTRUCT INLET	EACH	1
640.0001.0000	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	ALL REQUIRED
642.0001.0000	CONSTRUCTION SURVEYING	LUMP SUM	ALL REQUIRED
643.0002.0000	TRAFFIC MAINTENANCE	LUMP SUM	ALL REQUIRED

## ESTIMATING FACTORS

ITEM NO.	PAY ITEM	FACTOR
401.0001.002B	HMA, TYPE II; CLASS B	150 LB / CF
401.0004.0000	ASPHALT BINDER, GRADE PG52E-40	5.5% WEIGHT OF 401.0001.002B

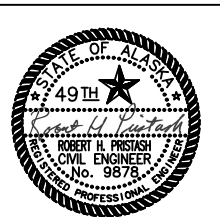
### GENERAL NOTES

1. GRADES, ALIGNMENTS, APPROACH LOCATIONS, LENGTHS AND LOCATIONS OF CONDUIT RUNS SHOWN ON THESE PLANS ARE SUBJECT TO MINOR REVISIONS BY THE ENGINEER. ALL DISTANCES SHOWN IN THE PLANS ARE HORIZONTAL MEASUREMENTS.
2. NUMEROUS UNDERGROUND UTILITIES EXIST WITHIN THE PROJECT CORRIDOR. THE CONTRACTOR SHALL CONTACT UTILITY OWNERS AND GET LOCATES PRIOR TO EXCAVATION.
3. VERIFY LOCATION AND ELEVATION OF NEARBY UNDERGROUND WATER, SEWER, STORM DRAIN, GAS, OR CABLES (BOTH MAINS AND SERVICES) AND REPORT TO ENGINEER BEFORE STARTING WORK THAT WILL CROSS THESE UTILITIES.
4. WORK IS REQUIRED UNDER EXISTING OVERHEAD CABLES. PROTECT EQUIPMENT AND PERSONNEL AS REQUIRED. SUBSIDIARY TO RESPECTIVE PAY ITEMS.
5. SAWCUT ALL MATCH LINES WHERE NEW CONSTRUCTION OF PAVEMENT, SIDEWALK OR CURBING ABUTS EXISTING. SAWCUTS SUBSIDIARY TO RESPECTIVE PAY ITEMS.
6. APPLY WATER FOR DUST CONTROL OR AS DIRECTED BY THE ENGINEER. PAY SUBSIDIARY TO PAY ITEM 643.0002.0000 TRAFFIC MAINTENANCE.
7. PAYMENT FOR PAY ITEM 202.0001.0000 REMOVAL OF STRUCTURES AND OBSTRUCTIONS SHALL BE A LUMP SUM PAYMENT FOR REMOVING ALL ITEMS IN CONFLICT WITH THE IMPROVEMENTS. THESE ITEMS ARE NOT LISTED. IT IS THE CONTRACTORS RESPONSIBILITY TO FIELD VERIFY THE NATURE OF THIS WORK BEFORE BIDDING.
8. ALL PAYMENTS REQUESTED BY THE CONTRACTOR SHALL BE DEVELOPED BY THE CONTRACTOR IN A FORM ACCEPTABLE TO THE ENGINEER. PAY ESTIMATES SHALL BE SUBMITTED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.
9. CONTRACTOR IS RESPONSIBLE FOR PROVIDING THEIR OWN STAGING AREA.
10. CONTRACTOR SHALL GET ENGINEER'S APPROVAL PRIOR TO ANY WORK OUTSIDE THE STREET RIGHT OF WAY.
11. ALL EXISTING ASPHALT PAVEMENT TO BE REMOVED SHALL BE DELIVERED TO THE CITY OF FAIRBANKS PUBLIC WORKS YARD AT 2121 PEGER ROAD. CONTRACTOR TO PROVIDE 48 HOURS NOTICE TO THE ENGINEER. SUBSIDIARY TO PAY ITEM 202.0001.0000.
12. STRUCTURAL EXCAVATION AND BACKFILL ARE SUBSIDIARY TO THE ITEMS INSTALLED.
13. VERIFY ELEVATION OF STORM DRAIN CONNECTION POINTS AND REPORT THESE SURVEY ELEVATIONS TO THE ENGINEER SO CHANGES CAN BE MADE IN THE GRADES AS REQUIRED TO MATCH EXISTING IMPROVEMENTS. PAYMENT SUBSIDIARY TO PAY ITEM 642.0001.0000
14. NEW STORM DRAIN MANHOLES SHALL BE PRECAST WITH BOOT STYLE CONNECTORS FOR WATERTIGHT SEAL.

### ABBREVIATIONS

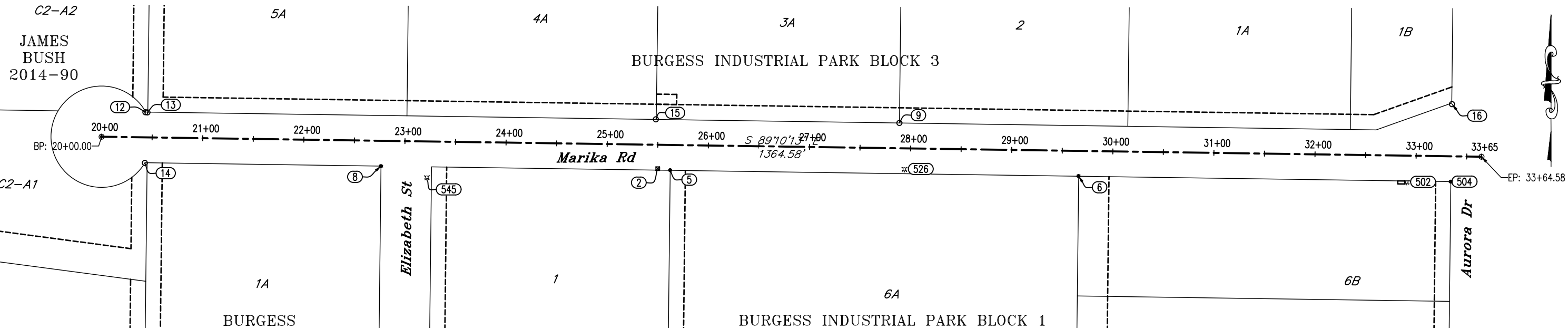
- |  |   |
|--|---|
| <p>ABD – ABANDONED<br/> AC – ASPHALT CONCRETE<br/> AP – ANGLE POINT<br/> ABC – AGGREGATE</p> <p>BASE COURSE<br/> BK SDWK – BACK OF SIDEWALK<br/> BLDG – BUILDING<br/> BL – BASELINE<br/> BOP – BEGINNING OF PROJECT<br/> BV – BUTTERFLY VALVE</p> <p>C – CONDENSATE CB – CATCH BASIN<br/> CC – CURB CUT<br/> CI – CAST IRON<br/> CL – CENTER LINE<br/> CONC – CONCRETE<br/> CS – CONDENSATE SERVICE<br/> CSP – CORRUGATED STEEL PIPE</p> <p>D – DUCT BANK<br/> DIP – DUCTILE IRON PIPE<br/> DL – DITCH LINE<br/> DG – DOWN GUY<br/> DW – DRIVEWAY</p> <p>E – EAST<br/> e – SUPERELEVATION<br/> EA – EACH<br/> ELEV – ELEVATION<br/> EOP – END OF PROJECT<br/> EP – EDGE OF PAVEMENT<br/> ES – END SECTION<br/> EXIST – EXISTING</p> <p>FG – FINISH GRADE<br/> FH – FIRE HYDRANT<br/> FL – FLOW LINE<br/> FLG – FLANGE<br/> FOC – FACE OF CURB<br/> FRM – FRAME<br/> FW – FLUSHWELL</p> <p>G – GUTTER<br/> GP – GRADE POINT<br/> GRP – GUARD POST<br/> GR – GRADE<br/> GRT – GRATE<br/> GV – GATE VALVE</p> <p>HB – HORIZONTAL BEND<br/> HDPE – HIGH DENSITY POLYETHYLENE<br/> HPS – HIGH PRESSURE SODIUM LUMINAIRE<br/> HWR – HOT WATER RETURN<br/> HWS – HOT WATER SUPPLY<br/> HWSS – HOT WATER SERVICE SUPPLY</p> <p>ID – INSIDE DIAMETER<br/> IE – INVERT ELEVATION<br/> INS – INSULATION</p> <p>L – LENGTH OF CURVE<br/> LTDL – LEFT DITCH LINE<br/> LT – LEFT<br/> LF – LINEAL FEET</p> <p>MAX – MAXIMUM<br/> MB – MAILBOX<br/> MH – MANHOLE<br/> MIN – MINIMUM<br/> MON – MONUMENT<br/> MV – MERCURY VAPOR LUMINAIRE</p> | <p>NC – NORMALLY CLOSED<br/> NE – NORTHEAST<br/> NW – NORTHWEST<br/> N – NORTH<br/> N.I.C. – NOT IN CONTRACT</p> <p>OD – OUTSIDE DIAMETER<br/> OG – ORIGINAL GROUND</p> <p>PC – POINT OF CURVATURE<br/> PCC – POINT OF COMPOUND CURVE<br/> PI – POINT OF INTERSECTION<br/> PIV – POST INDICATOR VALVE<br/> PL – PROPERTY LINE<br/> POT – POINT ON TANGENT<br/> PRC – PROPERTY CORNER<br/> PP – POWER POLE<br/> PT – POINT OF TANGENCY<br/> PLVC – POLYVINYL CHLORIDE<br/> PUE – PERMANENT UTILITY EASEMENT<br/> PVC – POINT OF VERTICAL CURVATURE<br/> PVI – POINT OF VERTICAL INTERSECTION<br/> PVMT – PAVEMENT<br/> PVT – POINT OF VERTICAL TANGENCY</p> <p>R – RADIUS<br/> RTDL – RIGHT DITCH LINE<br/> RMC – RIGID METAL CONDUIT<br/> ROW – RIGHT OF WAY<br/> R&amp;R – REMOVE AND REPLACE<br/> RT – RIGHT<br/> RPM – REINFORCED PLASTIC MORTAR</p> <p>SMTA – SELECTED MATERIAL TYPE A<br/> s – SLOPE<br/> S – SOUTH<br/> SE – SOUTHEAST<br/> SM – SEWER MAIN<br/> SMH – SEWER MANHOLE<br/> SMHS – SEWER MANHOLES<br/> SCH – SCHEDULE<br/> SD – STORM DRAIN<br/> SI – STREET INTERSECTION<br/> SL – STREET LIGHT<br/> SP – STEEL PIPE<br/> SS – SEWER SERVICE<br/> ST – STEAM<br/> STA – STATION<br/> STS – STEAM SERVICE<br/> SW – SOUTHWEST</p> <p>T – TELEPHONE<br/> TC – TOP OF CURB<br/> TCP – TEMP. CONSTRUCTION PERMIT<br/> TOC – TOP OF CONDUIT<br/> TOP – TOP OF PIPE<br/> TYP – TYPICAL</p> <p>UG – UNDERGROUND</p> <p>VB – VALVE BOX</p> <p>W – WEST<br/> WM – WATER MAIN<br/> WS – WATER SERVICE<br/> WSP – WOOD STAVE PIPE</p> |
|--|---|

GENERAL NOTES, ABBREVIATIONS,  
AND ESTIMATE OF QUANTITIES



05/20/24

		SCALE: NONE	DESIGNED: CLS	APPROVED	<b>MARIKA DRAINAGE IMPROVEMENTS</b>	CITY OF FAIRBANKS, ALASKA Engineering Department	Project ITB-24-07	1.02
			DRAWN: CLS	CITY ENGINEER				OF 9
DATE	REVISION	BY	CHECKED: RHP DATE: 04/26/24	DATE				SHEETS



**CONTROL NOTES**

THIS PROJECT IS LOCATED ENTIRELY WITHIN THE FAIRBANKS LOW DISTORTION PROJECTION (LDP), A LOW DISTORTION PROJECTION CREATED BY THE ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES.

**FAIRBANKS LDP DEFINITION:**

LINEAR UNIT: U.S. SURVEY FOOT (SFT)  
 DATUM: NAD83(2011)  
 PROJECTION: LAMBERT CONFORMAL CONIC, (SINGLE PARALLEL)  
 STANDARD PARALLEL AND GRID ORIGIN: 64°51'00"N  
 CENTRAL MERIDIAN (GRID ORIGIN): 146°56'00"W  
 FALSE NORTHING: 200,000 SFT  
 FALSE EASTING: 800,000 SFT  
 STANDARD PARALLEL SCALE: 1.00003 (EXACT)

THE THE BASIS OF COORDINATES FOR THIS PROJECT IS POINT NO. 1, "CITY HALL BASE STATION," A FIXED POSITION TRIMBLE ZEPHYR 3 GEODETIC ANTENNA ON THE ROOF OF FAIRBANKS CITY HALL. THE NAD 83 (2011) EPOCH (2010) POSITION FOR POINT NO. 1 IS BASED ON THE RESULTS OBTAINED FROM THE STATIC GPS OBSERVATIONS SENT TO THE NGS OPUS UTILITY FOR PROCESSING.

NAD 83 (2011) EPOCH (2010)  
 LATITUDE: 64° 50' 23.10291" NORTH,  
 LONGITUDE 147° 43' 16.39747" WEST  
 FAIRBANKS LOW DISTORTION PROJECTION COORDINATES  
 (US SURVEY FEET)  
 PROJECT BEARINGS ARE FAIRBANKS 05-05-15 LDP GRID BEARINGS.

BASIS OF BEARING IS FAIRBANKS LDP.

ROW LINES SHOWN WERE DETERMINED BY CITY OF FAIRBANKS (WILLIAM IRVING, PLS.) AND ARE BASED ON BEST FIT LINES BETWEEN EXISTING MONUMENTS.

THE BASIS OF VERTICAL CONTROL IS THE BENCHMARK "CP MARIKA", POINT # 2 ELEV. 437.08' NAVD88, A CHISELED "X" MARK ON EASTERLY RAILROAD TRACK.. TBMS ON SITE ESTABLISHED USING DIFFERENTIAL LEVELS TO FIRE HYDRANT "X" BOLTS.

HORIZONTAL CONTROL				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
2	202395.81	670266.22	437.1	CP MARIKA
5	202394.34	670278.50	436.4	RBRF
6	202388.57	670682.31	437.0	RBRF BENT
7	201519.77	670033.35	437.1	RBRF
8	202398.34	669992.56	435.2	RBRF
9	202440.94	670505.20	436.0	RBCF
10	201921.20	670273.30	437.9	RBCF
11	202037.74	670282.11	437.1	SPK 6IN
12	202451.46	669759.66	435.5	RBCF 4111-S
13	202451.34	669761.67	435.6	RBCF 4111-S
14	202401.43	669759.09	434.7	RBCF 4111-S
15	202444.52	670264.42	436.4	RBCF L4A L3A
16	202459.51	671051.62	438.3	RBCF AP
504	202383.02	671050.39	437.2	RBRF BENT

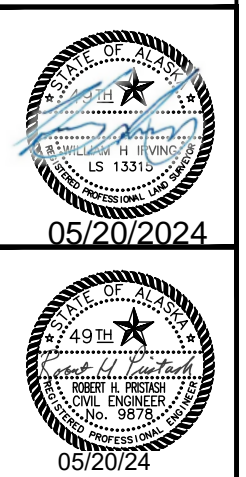
VERTICAL CONTROL				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
2	202396	670266	437.08	CP MARIKA
502	202383	671007	439.85	FH
526	202395	670510	438.53	FH
545	202387	670038	437.07	FH

**LEGEND:**

- REBAR & CAP FOUND
- REBAR FOUND
- ⌘ HYDRANT
- ⊠ CHISEL MARK IN RAIL
- △ 6" SPIKE

DESIGN ALIGNMENT - "M"					
START STATION	START COORDINATE	END STATION	END COORDINATE	BEARING	DISTANCE
20+00	N 202427.35 E 669716.30	33+64.58	N 202407.59 E 671080.73	S 89°10'13"	1364.58'

SURVEY CONTROL



DATE	REVISION	BY

SCALE: 1"=50' HORIZ., (FULL SIZE)  
 1"=100' HORIZ., (HALF SIZE)

DESIGNED: CLS  
 DRAWN: CLS  
 CHECKED: RHP  
 DATE: 04/26/24

APPROVED  
 \_\_\_\_\_  
 CITY ENGINEER  
 DATE

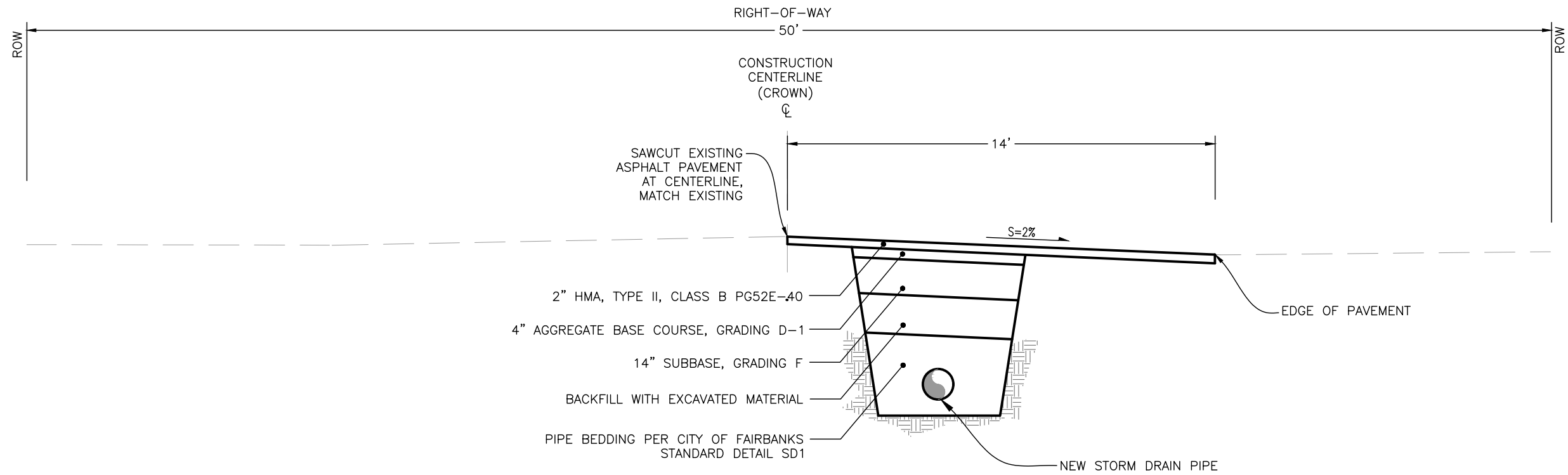
**MARIKA DRAINAGE IMPROVEMENTS**

CITY OF FAIRBANKS, ALASKA  
 Engineering Department  
 Project ITB-24-07

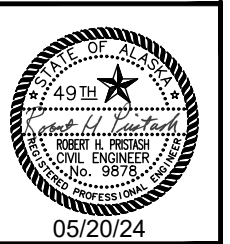
1.03  
 OF 9 SHEETS

TYPICAL SECTION NOTE:

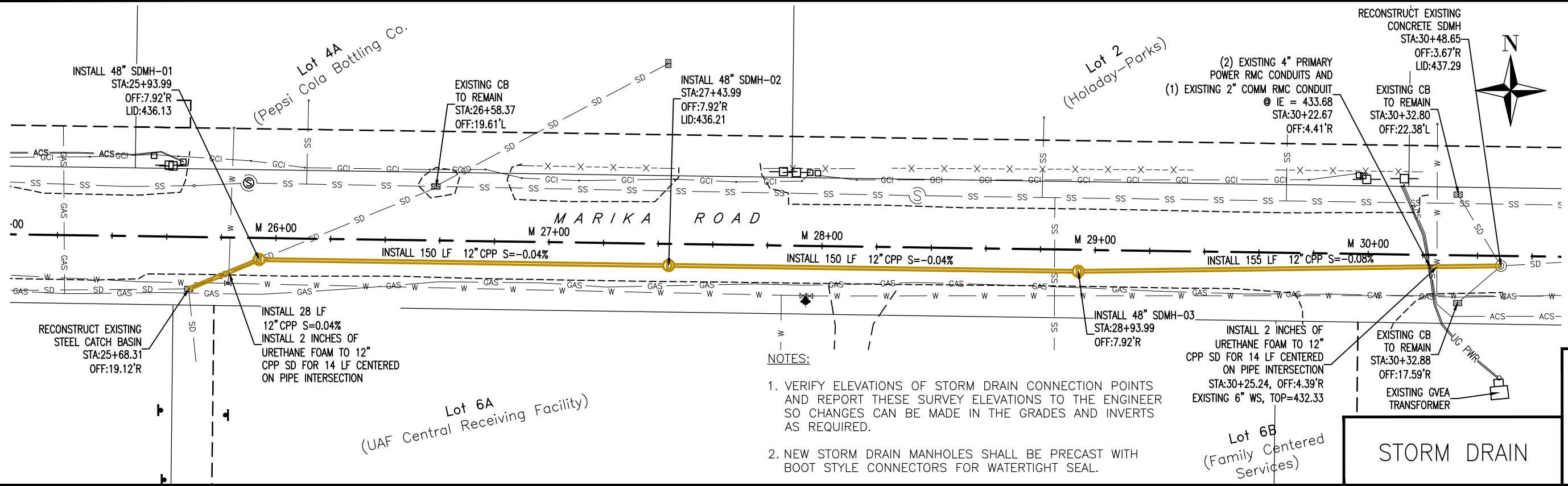
1. SAWCUT EXISTING ASPHALT AT CENTERLINE.
2. AGGREGATE BASE COURSE, GRADING D-1 AND SUBBASE, GRADING F WILL NOT BE MEASURED FOR PAYMENT BUT ARE SUBSIDIARY TO THE RESPECTIVE STORM DRAIN STRUCTURE OR PIPE.



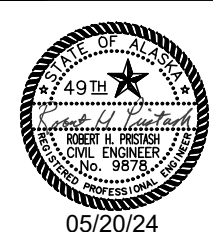
TYPICAL SECTION



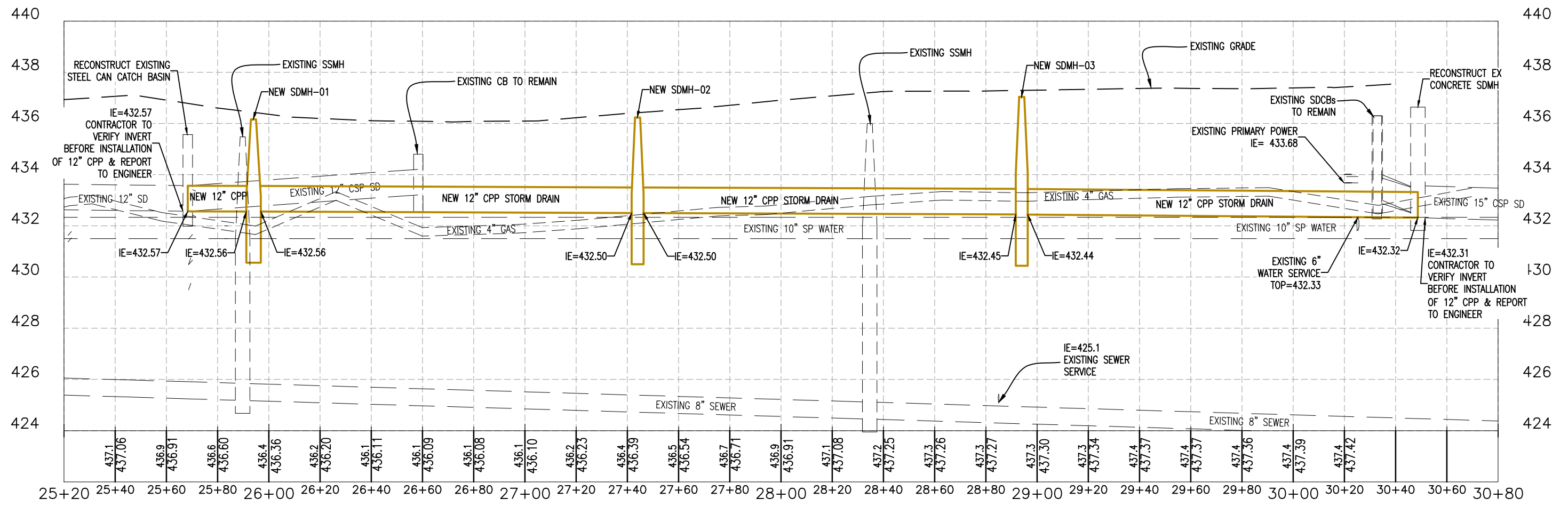
		SCALE:	DESIGNED: CLS	APPROVED	<b>MARIKA DRAINAGE IMPROVEMENTS</b>	CITY OF FAIRBANKS, ALASKA Engineering Department	<b>2.01</b>
			DRAWN: CLS	_____ CITY ENGINEER		Project ITB-24-07	OF 9 SHEETS
DATE	REVISION	BY	CHECKED: RHP DATE: 04/26/24	DATE			



- NOTES:
1. VERIFY ELEVATIONS OF STORM DRAIN CONNECTION POINTS AND REPORT THESE SURVEY ELEVATIONS TO THE ENGINEER SO CHANGES CAN BE MADE IN THE GRADES AND INVERTS AS REQUIRED.
  2. NEW STORM DRAIN MANHOLES SHALL BE PRECAST WITH BOOT STYLE CONNECTORS FOR WATERTIGHT SEAL.



**STORM DRAIN**



SCALE: 1"=20' HORIZ., 1"=2' VERT. (FULL SIZE)			DESIGNED: CLS DRAWN: CLS CHECKED: RHP DATE: 04/26/24		APPROVED CITY ENGINEER DATE		<b>MARIKA DRAINAGE IMPROVEMENTS</b>		CITY OF FAIRBANKS, ALASKA Engineering Department Project ITB-24-07		<b>3.01</b> OF 9 SHEETS
DATE	REVISION	BY									









## PROJECT SITE INFORMATION

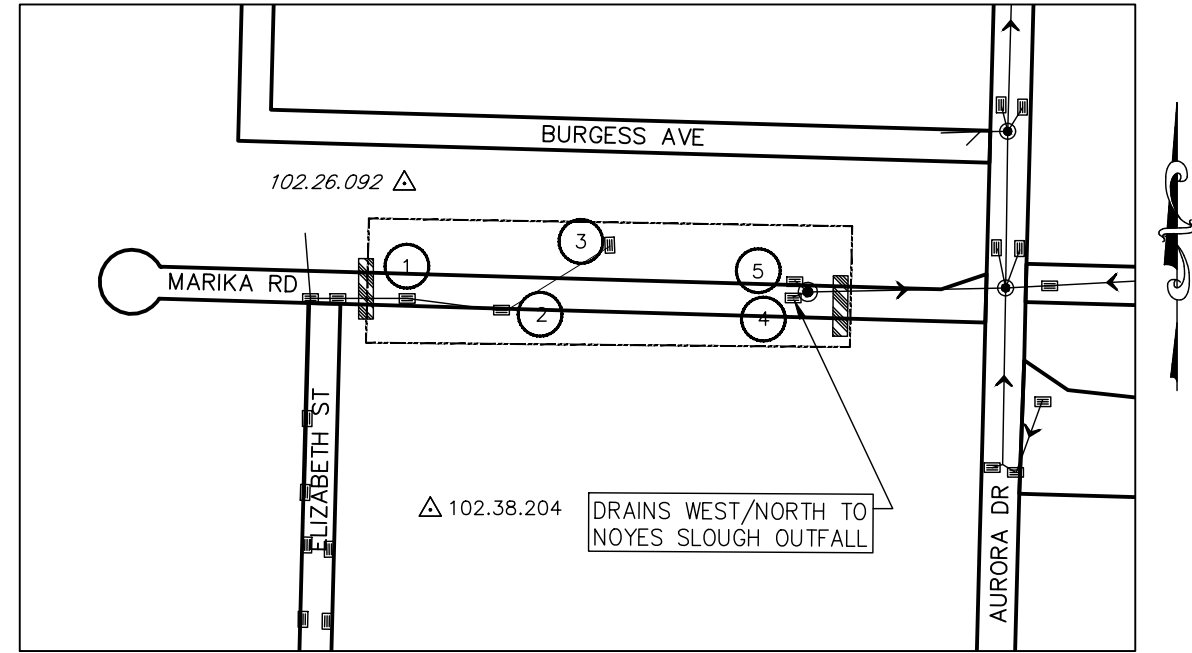
- SITE FUNCTION: STORM DRAIN MAINTENANCE
- MEAN ANNUAL PRECIPITATION: 10.53 INCHES AT FAIRBANKS INTERNATIONAL AIRPORT (SOURCE: <https://wrcc.dri.edu/cgi-bin/climAIN.pl?ak2968>)
- 2-YEAR, 24-HOUR RAINFALL EVENT: 1.09 INCHES, STATION: FAIRBANKS F.O. SITE ID: 10-0215 (SOURCE: [https://hdsc.nws.noaa.gov/pfds/pfds\\_map\\_ak.html](https://hdsc.nws.noaa.gov/pfds/pfds_map_ak.html))
- PROJECT AREAS ARE LISTED BELOW, MATERIAL SITES NOT INCLUDED:  
 PROJECT AREA: 0.62 ACRES  
 DISTURBED AREA: 0.15 ACRES  
 PRE-CONSTRUCTION PERCENT IMPERVIOUS AREA: 77  
 POST CONSTRUCTION PERCENT IMPERVIOUS AREA: 77  
 PRE-CONSTRUCTION RUNOFF COEFFICIENT: 0.90  
 POST-CONSTRUCTION RUNOFF COEFFICIENT: 0.90
- MATERIAL SITES: MATERIALS WILL BE CONTRACTOR FURNISHED.
- LANDSCAPE TOPOGRAPHY: VERY FLAT COMMERCIAL DEVELOPMENT IN PROJECT CORRIDOR. EXISTING SLOPES IN THIS AREA ARE RELATIVELY FLAT WITH POSITIVE DRAINAGE AWAY FROM STRUCTURES AND ROADS INTO EXISTING STORM DRAIN INFRASTRUCTURE.
- DRAINAGE PATTERNS: SURFACE DRAINAGE VIA PIPED STORM DRAIN SYSTEM FLOWS TO THE NOYES SLOUGH VIA THE AURORA DR OUTFALL.
- APPROXIMATE GROWING SEASON: MAY 3 THROUGH OCTOBER 3.
- EXISTING VEGETATION: PROJECT AREA IS COMMERCIAL LANDSCAPED GRASS, AND TREES.
- HISTORIC SITE CONTAMINATION: CONTAMINATED SITES HAVE BEEN IDENTIFIED WITHIN 1500 FEET THE PROJECT AREA (SOURCE: [HTTPS://DEC.ALASKA.GOV/SPAR/CSP](https://dec.alaska.gov/spar/csp))
  - HAZARD ID: 24450, FILE ID: 102.26.112 (STATUS: CLEANUP COMPLETE)
  - HAZARD ID: 24399, FILE ID: 102.26.092 (STATUS: CLEANUP COMPLETE)
  - HAZARD ID: 27084, FILE ID: 102.38.204 (STATUS: CLEANUP COMPLETE)
  - HAZARD ID: 24166, FILE ID: 102.26.069 (STATUS: CLEANUP COMPLETE)
  - HAZARD ID: 24960, FILE ID: 102.26.073 (STATUS: CLEANUP COMPLETE)
  - HAZARD ID: 2905, FILE ID: 102.38.087 (STATUS: CLEANUP COMPLETE, INSTITUTIONAL CONTROLS)
  - HAZARD ID: 24967, FILE ID: 102.26.154 (STATUS: CLEANUP COMPLETE)
  - HAZARD ID: 27082, FILE ID: 102.38.20 (STATUS: CLEANUP COMPLETE)
  - HAZARD ID: 24220, FILE ID: 102.26.024 (STATUS: CLEANUP COMPLETE)
  - HAZARD ID: 26157, FILE ID: 102.38.177 (STATUS: CLEANUP COMPLETE, INSTITUTIONAL CONTROL)
  - HAZARD ID: 25482, FILE ID: 102.38.159 (STATUS: ACTIVE)
- STAGING AND STOCKPILE AREAS: CONTRACTOR MUST SEEK LOCATIONS FOR STOCKPILING MATERIAL AND STAGING AND STORAGE OF EQUIPMENT.

## ENVIRONMENTAL INFORMATION

- RECEIVING WATERS: NOYES SLOUGH, FAIRBANKS MS4
  - IMPAIRED WATER BODIES: NONE
- TOTAL MAXIMUM DAILY LOAD (TMDL): FOR PETROLEUM HYDROCARBON AND GREASE NO VISIBLE SHEEN: FOR RESIDUE "TRASH/DABRIS" TMDL = 0
- STORM SEWER / DRAINAGE SYSTEMS: CITY OF FAIRBANKS MS4 CONSISTING OF PIPED AND SURFACE WATER DRAINAGE NETWORK TO OUTFALLS AT CHENA RIVER.
  - THREATENED AND ENDANGERED SPECIES: NONE
  - HISTORICAL & CULTURAL RESOURCE PRESENCE: A 106 PA STREAMLINED PROJECT REVIEW SCREENING RECORD WAS SIGNED BY THE PQI ON 6 SEPTEMBER 2023. THE 106 PA DETERMINED THAT THE PROJECT QUALIFIES FOR PROCESSING AS A PROGRAMMATIC ALLOWANCE.
  - FISH & WILDLIFE HABITAT PRESENCE: ALL CONSTRUCTION ACTIVITIES SHALL COMPLY WITH THE MIGRATORY BIRD TREAT ACT TO PREVENT THE KILLING OR TAKING OF MIGRATORY BIRDS OR ANY PART, NEST, OR EGG OF ANY SUCH BIRDS.
  - EXISTING PUBLIC WATER SYSTEM (PWS) DRINKING WATER PROTECTION AREAS:
    - PWSID: AK2310730
    - WATER SYSTEM NAME: GOLDEN HEART UTILITIES
    - PWS CONTACT INFORMATION NAME: TARIK SPEAR  
 PHONE: (907) 455-4444  
 EMAIL: TARIK.SPEAR@AKWATER.COM  
 ADDRESS: 3691 CAMERON ST #201, FAIRBANKS, AK 99709

### LEGEND

-  STORM DRAIN MANHOLE
-  STORM DRAIN INLET
-  STORM DRAIN PIPE
-  PIPE FLOW DIRECTION
-  CATCH BASIN & CULVERT PROTECTION AREA
-  CATCH BASINS THAT REQUIRE INLET PROTECTION
-  DEC CONTAMINATED SITES  
FILE ID = XXX.XX.XXX
-  VEHICLE TRACKING ENTRANCE/EXIT



### MARIKA RD

## EROSION & SEDIMENT CONTROL PLAN (ESCP) NOTES

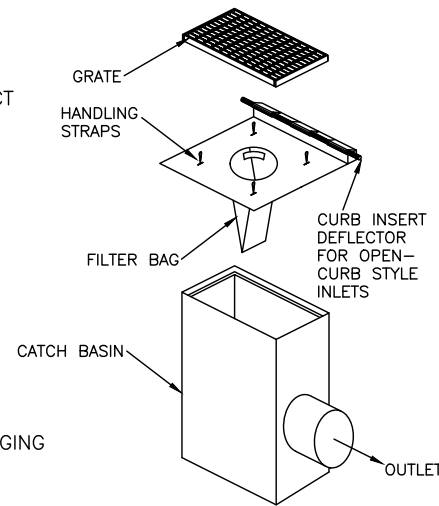
- THIS PROJECT IS UNDER ONE ACRE AND WILL NOT BE REQUIRED TO DEVELOP A SWPPP OR FILE AN NOI WITH ADEC. EVEN IF THIS PROJECT DOES NOT NEED PERMIT COVERAGE, EROSION AND SEDIMENT CONTROLS WILL BE REQUIRED AND WATER QUALITY WILL BE PROTECTED.
  - THIS SHEET CONTAINS A PLAN VIEW OF MARIKA ROAD AND ITS EXISTING STORM DRAIN SYSTEM, INCLUDING ALL KNOWN STORM DRAIN INLETS, MANHOLES, AND PIPED SECTIONS. THE CONTRACTOR SHALL SELECT AND APPLY APPROPRIATE CONTROLS TO PREVENT SEDIMENT AND OTHER POLLUTANTS FROM ENTERING THE PIPED STORM DRAIN SYSTEM AND DISCHARGING TO THE NOYES SLOUGH.
  - HAVE A SPILL KIT AVAILABLE AT EACH WORK AREA WHEN HEAVY EQUIPMENT IS BEING UTILIZED.
  - ALL ENTRANCE AND EXITS WILL BE SWEEPED AT A FREQUENCY TO MINIMIZE THE TRACK OUT FORM THE PROJECT OR AS DIRECTED BY THE ENGINEER.
- TEMPORARY BEST MANAGEMENT PRACTICES (BMPS)**
- BEST MANAGEMENT PRACTICES (BMPS) IMPLEMENTED ON THIS PROJECT WILL UTILIZE THE SPECIFICATIONS PROVIDED IN THE ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION STORM WATER GUIDE OR THE DOT&PF BMP GUIDE, WHENEVER POSSIBLE.
  - INSTALL EROSION AND SEDIMENT CONTROL BMP'S PRIOR TO THE START OF CONSTRUCTION, AS NECESSARY TO MINIMIZE EROSION FROM DISTURBED SURFACES AND CAPTURE SEDIMENT ONSITE.
  - AT A MINIMUM, INLET PROTECTION (I.E. FILTER BAGS PLACED UNDER THE INLET GRATE) SHALL BE PROVIDED AT ALL INLETS WITHIN AND IMMEDIATELY ADJACENT TO THE PROJECT LIMITS.
  - MAINTAIN BMPS ON A REGULAR BASIS INCLUDING, BUT NOT LIMITED TO, REMOVAL AND DISPOSAL OF SEDIMENT AND REPLACING DAMAGED BMPS OR AS DIRECTED BY THE ENGINEER.

### HAZARDOUS MATERIAL CONTROL PLAN (HMCP)

- SUBMIT AN ELECTRONIC COPY TO THE ENGINEER FOR APPROVAL. THE CITY WILL REVIEW THE HMCP SUBMITTAL WITHIN 14 DAYS AFTER IT IS RECEIVED.
- PREPARE THE HMCP FOR PREVENTION OF POLLUTION FROM STORAGE, USE, CONTAINMENT, CLEANUP, AND DISPOSAL OF ALL HAZARDOUS MATERIALS, INCLUDING PETROLEUM PRODUCTS RELATED TO CONSTRUCTION ACTIVITIES AND EQUIPMENT. COMPILER MATERIAL SAFETY DATA SHEETS IN ONE LOCATION AND REFERENCE THAT LOCATION IN THE HMCP.
- DESIGNATE A CONTRACTOR'S SPILL RESPONSE FIELD REPRESENTATIVE WITH 24 HOUR CONTACT INFORMATION. DESIGNATE A SUBCONTRACTOR SPILL RESPONSE COORDINATOR FOR EACH SUBCONTRACTOR. THE SUPERINTENDENT AND CONTRACTOR'S SPILL RESPONSE FIELD REPRESENTATIVE MUST HAVE 24 HOUR CONTACT INFORMATION FOR EACH SUBCONTRACTOR SPILL RESPONSE COORDINATOR AND THE UTILITY SPILL RESPONSE COORDINATOR.

### HAULING

- ENSURE LOADS ARE STABLE OR COVERED SO THAT NO MATERIAL ESCAPEMENT OCCURS DURING HAULING ACTIVITIES.



### CATCH BASIN INLET PROTECTION DETAIL

			SCALE:	DESIGNED: CLS	APPROVED  CITY ENGINEER	<b>MARIKA DRAINAGE IMPROVEMENTS</b>	CITY OF FAIRBANKS, ALASKA Engineering Department	4.01
				DRAWN: CLS				
				CHECKED: RHP				
DATE	REVISION	BY		DATE: 04/26/24	DATE		Project ITB-24-07	OF 9 SHEETS





**TRAFFIC CONTROL GENERAL NOTES**

1. THESE TRAFFIC CONTROL PLANS (TCPs) ARE GENERAL IN NATURE. CONTRACTOR TO PROVIDE DETAILED TRAFFIC CONTROL PLANS TO ENGINEER FOR APPROVAL. NO WORK SHALL BEGIN WITHOUT AN APPROVED TCP.
2. REFER TO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) CURRENT ADOT ADOPTED EDITION FOR TRAFFIC CONTROL PLAN SPECIFICATIONS.
3. IMPLEMENT ONLY ONE TRAFFIC CONTROL SETUP AT A TIME AND RESTORE FULL FUNCTION AS SOON AS PRACTICABLE.
4. ALL SIGNS AND BARRICADES SHALL MEET REQUIREMENTS OF THE CURRENT ALASKA TRAFFIC MANUAL (ATM), MUTCD, AND ALASKA SIGN DESIGN SPECIFICATION (ASDS). THE FINAL JUDGMENT IN THE SELECTION, NUMBER AND APPLICATION OF THE TRAFFIC CONTROL DEVICES AND LOCATION OF ALL TRAFFIC CONTROL MEASURES WILL REST WITH THE ENGINEER.
5. EXISTING SIGNS WHICH CONFLICT WITH CONSTRUCTION SIGNING SHALL BE COVERED DURING PROJECT.
6. CONSTRUCTION SIGNING SPECIFIED MAY BE ALTERED BY THE ENGINEER TO MEET CHANGING CONDITIONS AND TO PROTECT THE TRAVELING PUBLIC.
7. BARRICADE SETUPS SHALL HAVE 1 OPERABLE FLASHING LIGHT FOR EACH 10 FEET OF BARRICADE, WITH A MINIMUM OF 2 LIGHTS PER TYPE III BARRICADE. EXCEPT IN A TAPER WHERE ONLY THE FIRST TWO LIGHTS SHALL FLASH (TYPE A) AND THE REMAINDER SHALL BE STEADY BURN (TYPE C).
8. WHEN STREETS ARE RESTRICTED TO ONE LANE, THE MINIMUM CLEAR WIDTH SHALL BE 12' UNLESS OTHERWISE SPECIFIED ON AN APPROVED TRAFFIC CONTROL PLAN (TCP) OR AS DIRECTED BY THE ENGINEER.
9. ACCESS SHALL BE MAINTAINED FOR THE PASSAGE OF EMERGENCY VEHICLES THROUGH THE PROJECT.
10. ACCESS SHALL BE PROVIDED TO COMMERCIAL PROPERTIES DURING THEIR BUSINESS HOURS. CLOSURES SHALL NOT OCCUR WITHOUT PRIOR WRITTEN APPROVAL OF THE ENGINEER. COORDINATE CLOSURE PLANS WITH THE AFFECTED BUSINESS OWNERS AND PROPERTY OWNERS. NOTIFY OWNERS A MINIMUM OF 48 HOURS PRIOR TO IMPLEMENTATION OF AN APPROVED CLOSURE.
11. PEDESTRIAN FLAGGERS SHALL BE PROVIDED FOR PUBLIC ACCESS AS REQUIRED THROUGHOUT THE PROJECT LIMITS.
12. ALTERNATE ACCESS MAY ALSO BE USED AS PART OF AN APPROVED TRAFFIC CONTROL PLAN. ALTERNATE ACCESS ROUTES SHALL BE CLEARLY SIGNED.
13. TYPE "A" FLASHING WARNING LIGHTS SHALL BE USED TO MARK THE TYPE III BARRICADES, ROAD CLOSURES AND ADVANCE DETOUR SIGNING AT NIGHT.
14. CONTRACTOR SHALL INTEGRATE TRAFFIC CONTROL WITH OTHER CONSTRUCTION IN THE AREA AS APPLICABLE.
15. CONTRACTOR SHALL PROVIDE AFFECTED BUSINESS OWNERS NOTICE OF CONSTRUCTION A MAXIMUM OF 3 WEEKS AND A MINIMUM OF 1 WEEK PRIOR TO CONSTRUCTION. NOTICE TO INCLUDE NEWSPAPER ADVERTISEMENT AND FLYERS TO BUSINESS OWNERS.
16. ALL SPECIAL SIGNS SHALL BE FABRICATED OF MATERIALS CONFORMING TO SECTION 615 OF THE SPECIFICATIONS.
17. TEMPORARY DRIVING SURFACE SHALL AT A MINIMUM BE COMPACTED GRAVEL OR AS APPROVED BY THE ENGINEER.

**MARIKA RD CONSTRUCTION REQUIREMENT NOTES**

- 1 MARIKA ROAD MAY BE CLOSED TO THRU TRAFFIC FOR THE DURATION OF THE PROJECT. USE ELIZABETH AND HANSON ROAD FOR VEHICULAR DETOUR.
- 2 PEDESTRIAN ACCESS SHALL BE MAINTAINED THROUGH PROJECT AREA TO ALL BUSINESSES.

- 3 CONTRACTOR TO MAINTAIN VEHICULAR ACCESS TO 1855 MARIKA ROAD DURING BUSINESS HOURS (10AM-5:30PM TUES-FRI AND 9AM-5PM ON SATURDAY). CONTRACTOR TO COORDINATE ANY TEMPORARY CLOSURE AS REQUIRED WITH THE FNSB CENTRAL RECYCLING FACILITY AT 907-347-6616

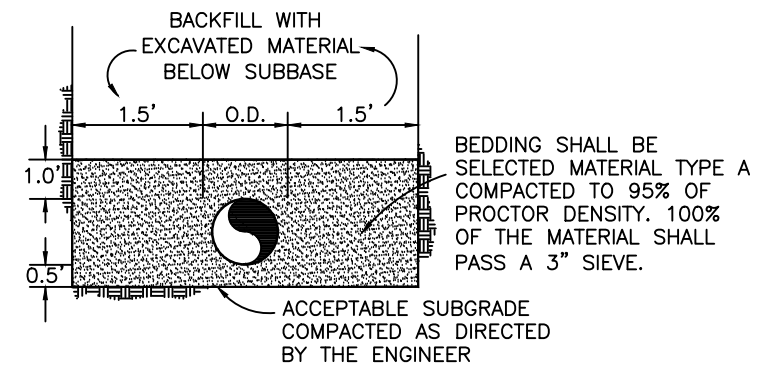
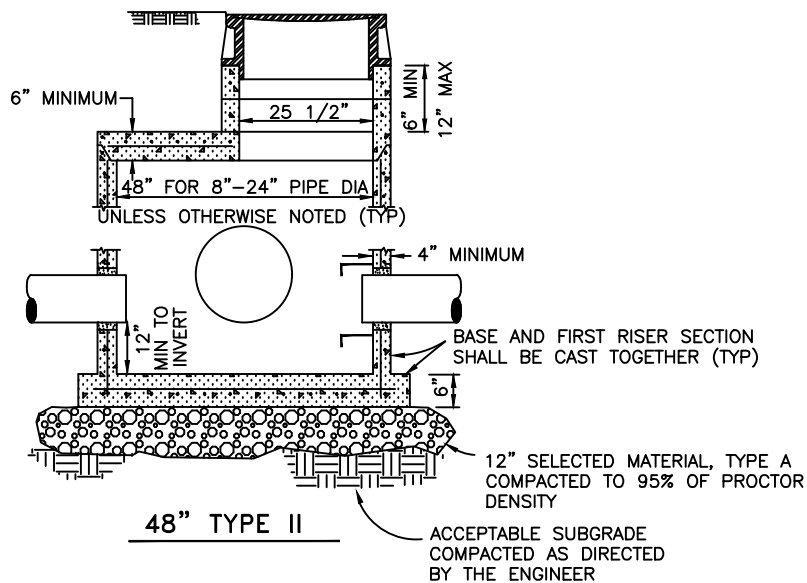
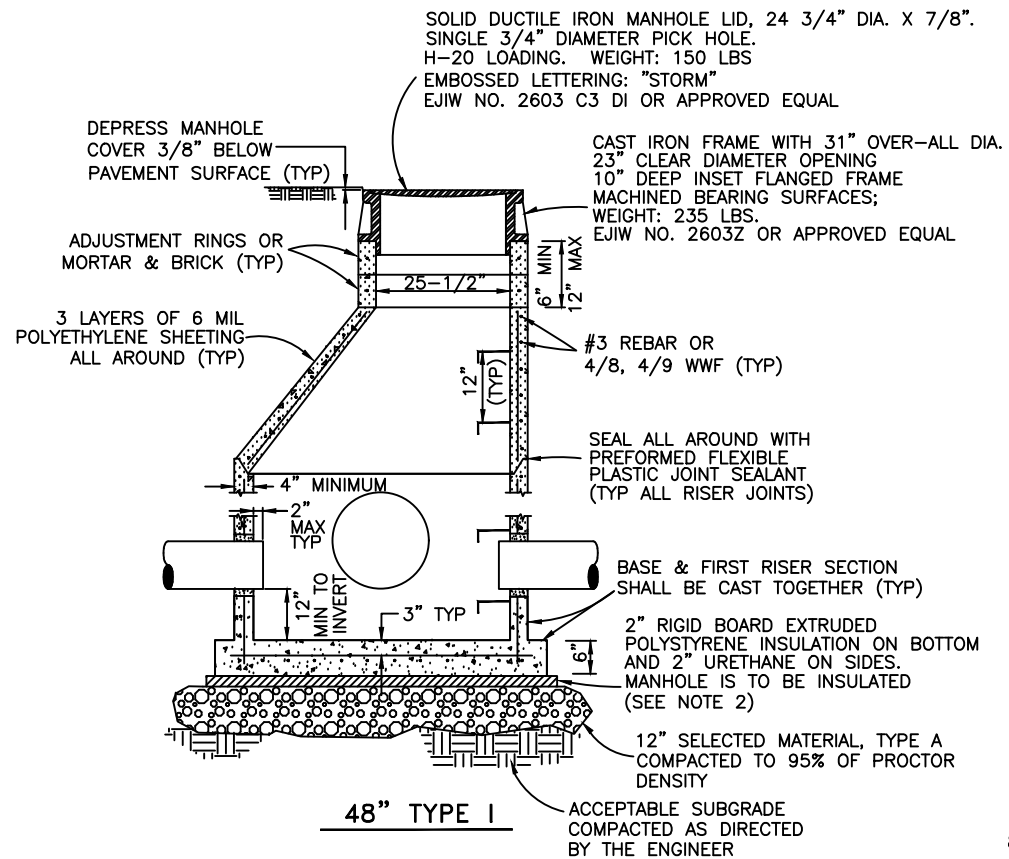
**LEGEND**

- TYPE 3 BARRICADE WITH R11-2 SIGN
- WORK AREA - FULL CLOSURE
- DETOUR ROUTE

CONSTRUCTION  
REQUIREMENTS  
1 OF 1

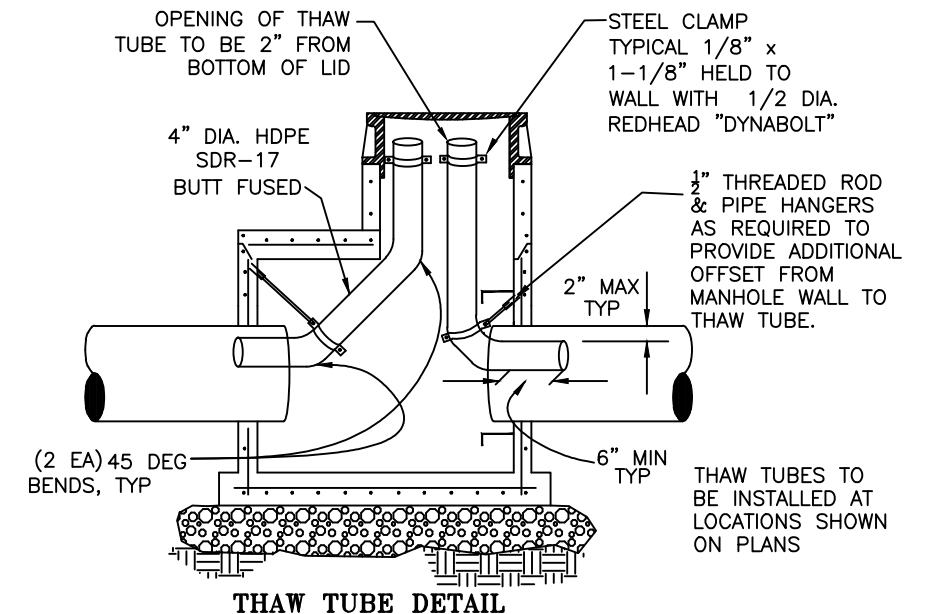
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				DRAWN: CLS	_____ CITY ENGINEER			
DATE	REVISION	BY		CHECKED: RHP	DATE		Project ITB-24-07	OF 9 SHEETS
				DATE: 04/26/24				



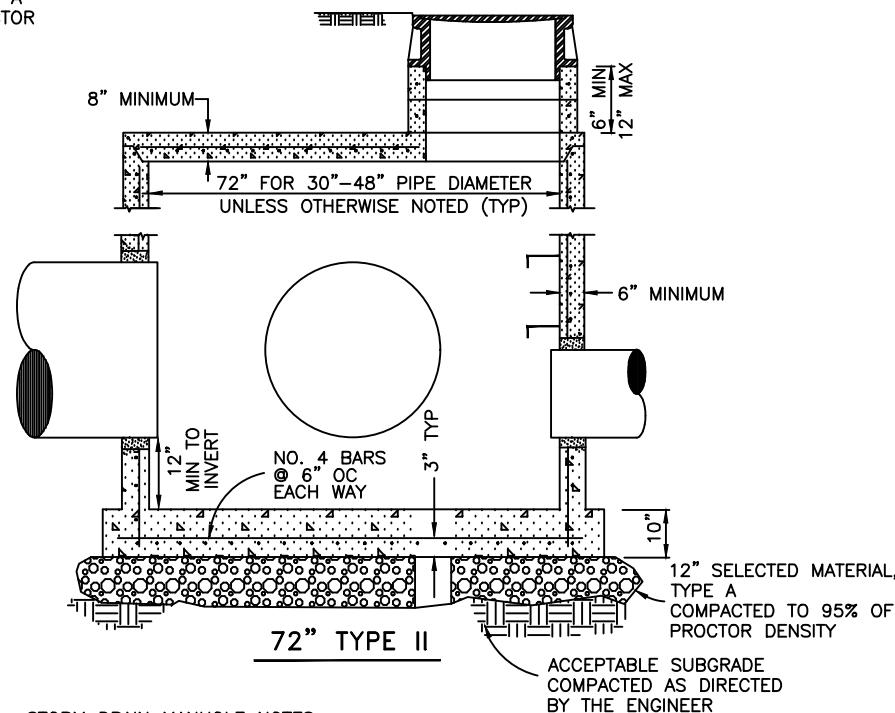


**PIPE BEDDING DETAIL**

NOT TO SCALE



**THAW TUBE DETAIL**

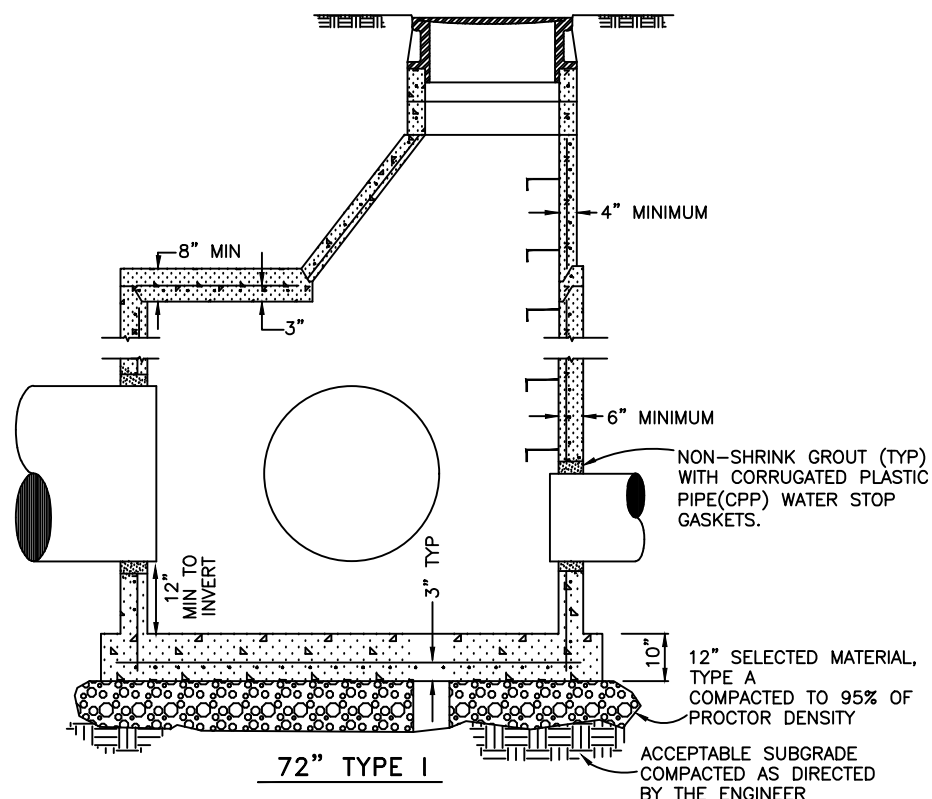


**STORM DRAIN MANHOLE NOTES:**

1. OPENINGS IN MANHOLE TO RECEIVE PIPE SHALL BE 1" TO 2" LARGER THEN THE OD AND PIPE. LARGER OPENINGS SHALL BE FILLED AS DIRECTED BY THE ENGINEER. INSIDE GROUT SURFACE SHALL BE SMOOTH. PROVIDE CPP WATER STOP GASKETS.
2. TYPICALLY, STORM DRAIN MANHOLES DO NOT REQUIRE INSULATION. HOWEVER, SPECIAL CASES REQUIRE INSULATION OF ALL OUTSIDE SURFACES. SEE PLANS.
3. SEAL RISER JOINTS WITH FLEXIBLE PLASTIC JOINT SEALERS.
4. MANHOLE STEPS SHALL BE APPROVED GALVANIZED STEEL OR PLASTIC AND MEET CURRENT OSHA STANDARDS.
5. ALL GROUT SHALL BE NON-SHRINK. PROTECT GROUT DURING CURE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED METHOD.
6. REINFORCEMENT IN BASE, RISER, CONE, FLAT LID, AND ADJUSTING RINGS SHALL COMPLY WITH AASHTO SPECIFICATION M199/ASTM478.

SECTION	MANHOLE SIZE		(SHALL COMPLY WITH AASHTO M 199 /ASTM 478)
	48"	72"	
FLAT BASE	0.39 SQ IN/FT EACH WAY	0.39 SQ IN/FT EACH WAY	*CIRCUMFERENTIAL REINFORCING ALL AREAS ARE MINIMUM CROSS-SECTIONAL AREA OF REINFORCEMENT PER FOOT OF SECTION.
RISER SECTION*	0.12 SQ IN/FT	0.18 SQ IN/FT	
CONE SECTION*	0.12 SQ IN/FT	0.18 SQ IN/FT	
FLAT LID**	0.12 SQ IN/FT EACH WAY	0.12 SQ IN/FT EACH WAY	
ADJUSTING RING	0.024 SQ IN	0.024 SQ IN	

\*\*OPENINGS IN FLAT LIDS SHALL BE ADDITIONALLY REINFORCED WITH A MINIMUM OF THE EQUIVALENT OF 0.2 SQ IN OF STEEL AT 90'.



**TYPICAL CONCRETE STORM DRAIN MANHOLES**

NOT TO SCALE

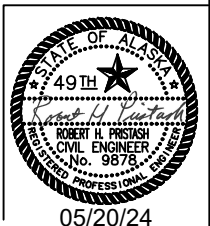
3/13/17	WATER STOP GASKETS	RHP
2/3/10	NEW SD1	GSC,RHP
3/23/07		RHP
DATE		BY

NOT TO SCALE

DESIGNED:	
DRAWN:	STAFF
CHECKED:	RHP,GSC
DATE:	3/23/07

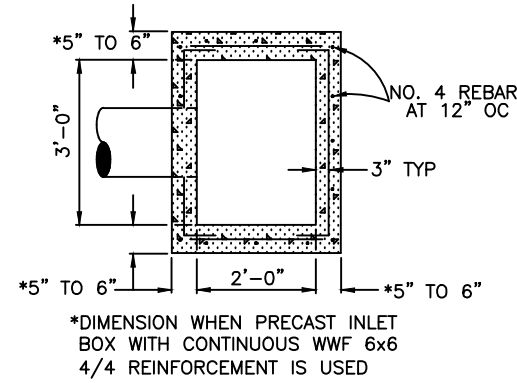
**CITY OF FAIRBANKS, ALASKA**  
ENGINEERING DIVISION

**STANDARD DETAILS**  
STORM DRAIN MANHOLES, THAW TUBES AND BEDDING SD1

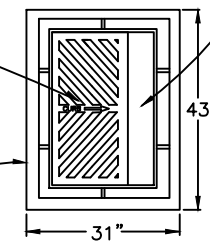




TYPICAL CURB INLET



EJIW 7070M9 GRATE OR APPROVED EQUAL  
17 3/4" X 35 1/4" X 1 7/8".  
OPEN AREA: 190 SQ. IN.  
WEIGHT: 190 LBS.



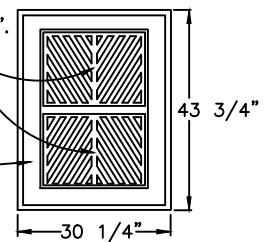
EJIW 7030Z1DI HEAVY TRAFFIC LOADING FRAME OR APPROVED EQUAL  
WEIGHT: 185 LBS.

EJIW 7030T4DI ADJUSTABLE HOOD WITH 6"-11" RANGE OR APPROVED EQUAL  
5 7/8" X 37" X 13". 3" RADIUS  
WEIGHT: 160 LBS  
EMBOSSED LETTERING:  
"DUMP NO WASTE! DRAINS TO RIVERS"  
WITH FISH IMAGE PERMANENTLY CAST INTO HOOD TOP.

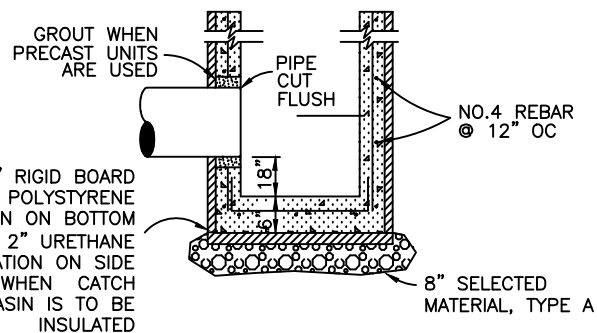
EJIW 7030T3 BACK GRATE OR APPROVED EQUAL (WHEN INLET IS LOCATED IN CURB CUT DEPRESSED SECTION):  
GRATE: 7" X 37 3/4" W/ 12" R  
WEIGHT: 105 LBS.

TYPICAL FIELD INLET

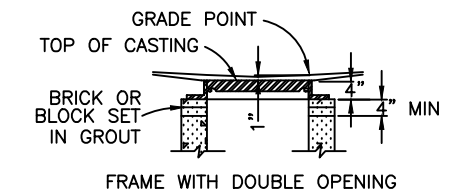
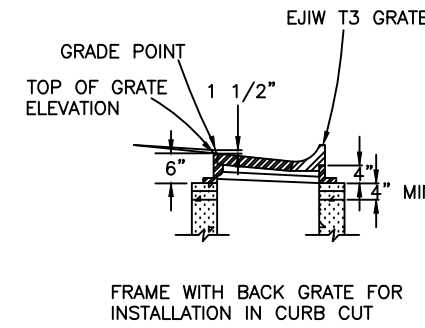
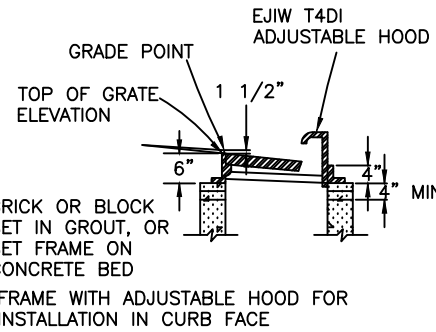
EJIW 7700M1 GRATE (2) EA OR APPROVED EQUAL  
17 3/4" X 23 3/4" X 1 1/2".  
OPEN AREA: 128 SQ. IN.



EJIW 7705Z HEAVY TRAFFIC LOADING FRAME WITH OPENINGS FOR (2) GRATES. WEIGHT: 216 LBS.  
EMBOSSED LETTERING:  
"DUMP NO POLLUTANTS"

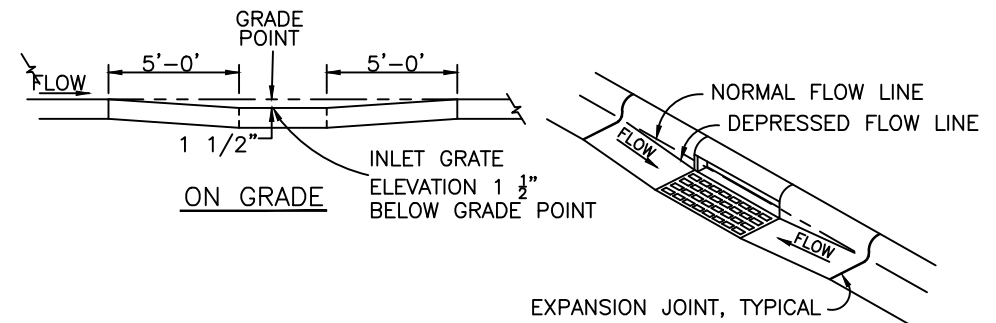


**REINFORCED CATCH BASIN (STANDARD)**

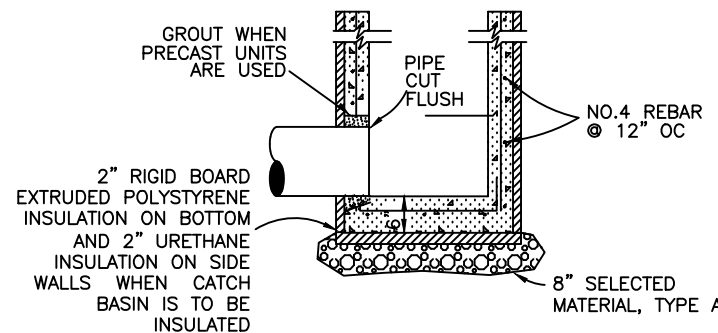


**INLET BOX/CATCH BASIN DETAILS**

NOT TO SCALE



**DEPRESSION IN FLOW LINE AT INLET**

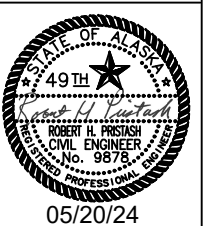


**NO SUMP CATCH BASIN**

ALTERNATE USED WHERE INDICATED ON PLANS

**CATCH BASIN NOTES:**

1. THE WORDS "INLET" AND "CATCH BASIN" SHALL BE INTERCHANGEABLE.
2. ALL GROUT SHALL BE NON-SHRINK. PROTECT GROUT DURING CURE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED METHOD.
4. TYPICALLY, CATCH BASINS ARE NOT INSULATED. HOWEVER, SPECIAL CASES REQUIRE INSULATION OF ALL OUTSIDE SURFACES. SEE PLAN NOTE TO INSULATE CB.
5. GROUT THE INSIDE FACE OF ALL JOINTS SMOOTH.



05/20/24

2/3/10	NEW SD2	GSC,RHP
3/23/07		RHP
DATE	REVISION	BY

NOT TO SCALE

DESIGNED:	
DRAWN:	STAFF
CHECKED:	RHP,GSC
DATE:	3/23/07

CITY OF FAIRBANKS, ALASKA  
ENGINEERING DIVISION

STANDARD DETAILS  
STORM DRAIN CATCH BASIN

SD2