



CITY OF  
BAINBRIDGE ISLAND

# CITY OF BAINBRIDGE ISLAND PUBLIC WORKS ENGINEERING DEPARTMENT

## HENSHAW MADRONA SEWER IMPROVEMENTS BID SET C.I.P. NO. 00806

CITY OFFICIALS:

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VAL TOLLEFSON

COUNCIL MEMBERS:

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ROGER TOWNSEND              SARAH BLOSSOM  
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PUBLIC WORKS DIRECTOR:

BARRY LOVELESS, P.E.

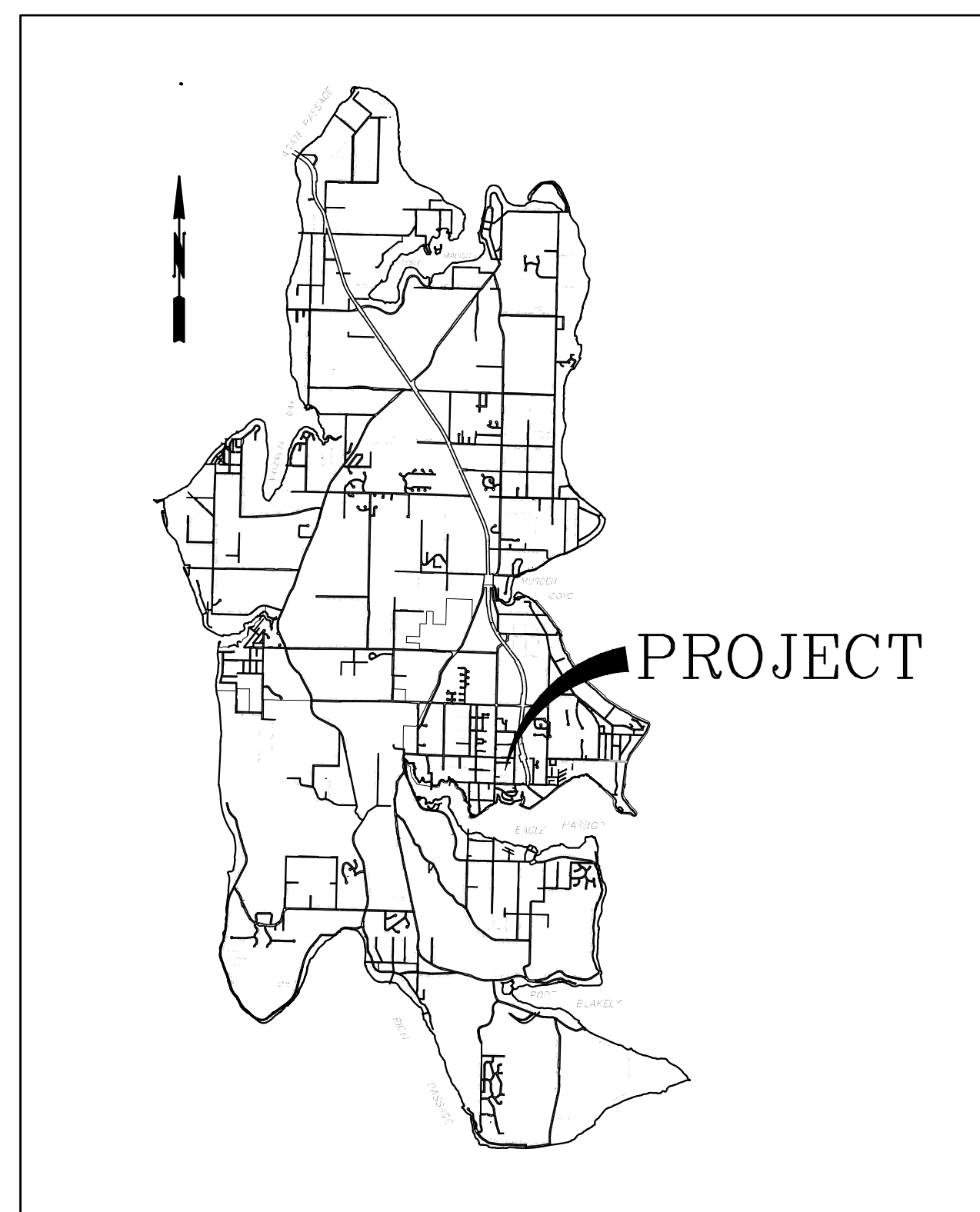
RECOMMENDED FOR APPROVAL BY:

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PATRICIA JENKINS  
ENGINEER

APPROVED BY:

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K. CHRIS HAMMER, P.E., P.M.P.,  
ENGINEERING MANAGER

Sheet List Table	
Sheet Number	Sheet Title
C1	COVER SHEET
C2	LEGENDS AND ABBREVIATION
C3	INDEX SHEET
C4	DEMO PLAN
C5	MADRONA PLAN AND PROFILE
C6	HENSHAW PLAN AND PROFILE



VICINITY MAP

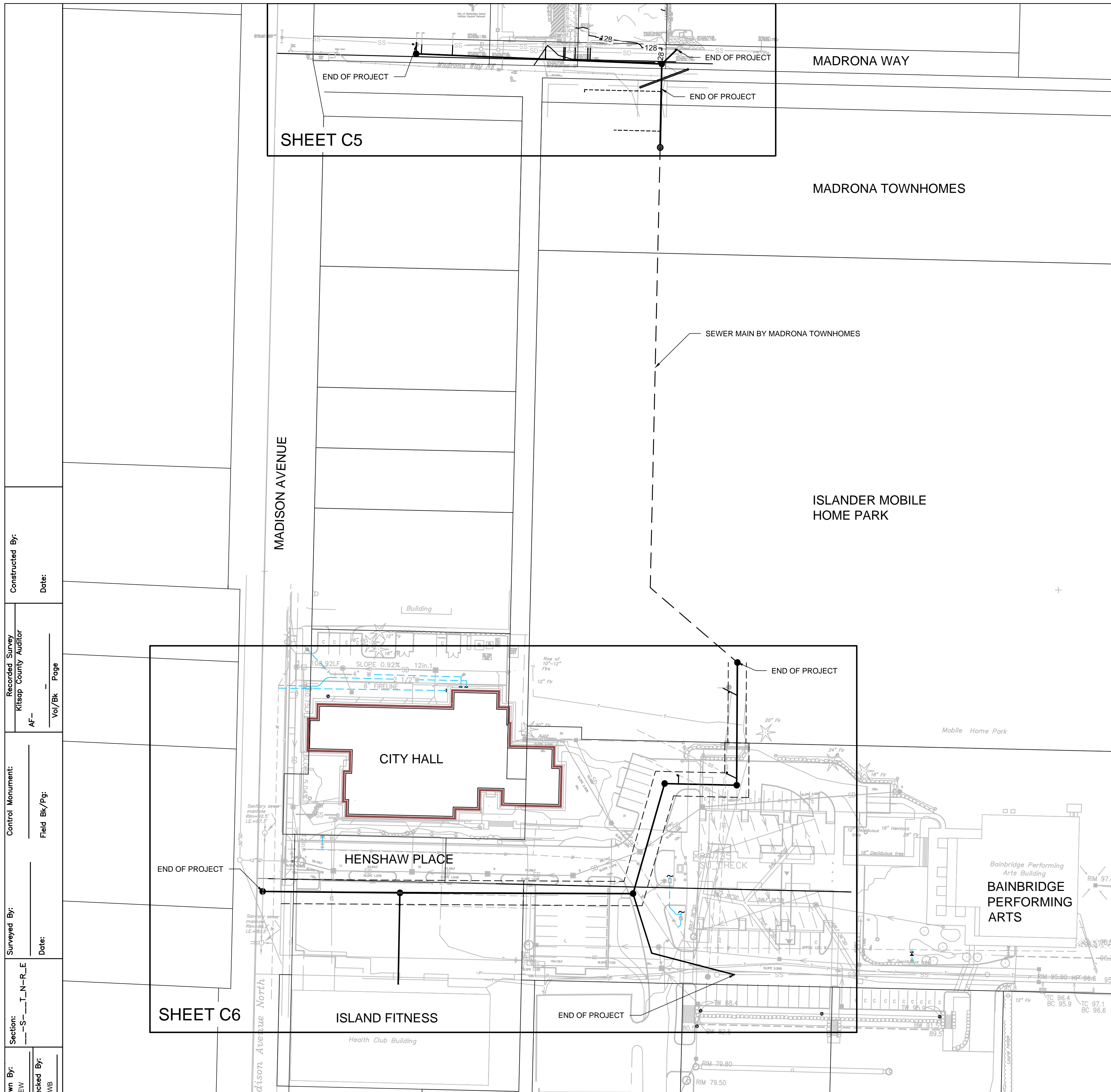
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9/13/16

Filename: C1 COVER SHEET  
XREF Filename:  
Drawn By: AEW  
Checked By: DWB  
Section: S-T-N-R-E  
Surveyed By: \_\_\_\_\_  
Date: \_\_\_\_\_  
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Field Bk/Pg: \_\_\_\_\_  
Recorded Survey: \_\_\_\_\_  
Kitsap County Auditor  
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**GENERAL NOTES**

- UNLESS OTHERWISE SPECIFIED, MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENTLY ADOPTED EDITION OF "STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION", APWA/WSDOT EXCEPT AS MODIFIED BY THE CITY OF BAINBRIDGE ISLAND IN THE CURRENT EDITION OF "DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS"
- THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES AND OTHER FEATURES ON THE PLAN ARE APPROXIMATE AND MAY NOT BE COMPLETE. ACTUAL LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR AS REQUIRED.
- CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR WORKER SAFETY. ALL TRENCHING AND OTHER ACTIVITIES SHALL BE IN ACCORDANCE WITH STATE AND LOCAL SAFETY REGULATIONS AND REQUIREMENTS.
- A COPY OF THE APPROVED PLANS AND OTHER APPLICABLE SPECIFICATIONS AND DRAWINGS SHALL BE ONSITE DURING CONSTRUCTION.
- CONTRACTOR SHALL OBTAIN AN UNDERGROUND UTILITIES LOCATE PRIOR TO BEGINNING CONSTRUCTION (UNDERGROUND UTILITIES LOCATION SERVICE, 811).
- CONTRACTOR SHALL INSTALL, REPLACE OR RELOCATE ALL SIGNS AND OTHER FEATURES AFFECTED BY CONSTRUCTION.
- CONTRACTOR SHALL APPLY FOR AND OBTAIN AN APPROVED PERMIT FOR WORK IN THE RIGHT OF WAY PRIOR TO ANY WORK IN THE RIGHT OF WAY.
- CONTRACTOR SHALL SCHEDULE AND ATTEND A PRE-CONSTRUCTION CONFERENCE WITH CITY STAFF PRIOR TO ANY WORK ON CITY RIGHTS-OF-WAY.
- ANY REVISIONS TO THE PLANS SHALL BE REVIEWED AND APPROVED BY THE BAINBRIDGE ISLAND ENGINEERING DEPARTMENT PRIOR TO IMPLEMENTATION IN THE FIELD.
- SIGNING, FLAGGING AND TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE WSDOT TRAFFIC MANUAL AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. THE PLAN SHALL BE PROVIDED TO THE CITY FOR APPROVAL IF APPLICABLE.
- ALL PIPE AND OTHER MATERIAL STORED ALONG CITY RIGHT-OF-WAY MUST BE PLACED AT A SAFE DISTANCE FROM THE TRAVELED ROADWAY IN SUCH A MANNER AS TO AVOID FALLING ONTO THE ROADWAY.
- MAXIMUM LENGTH OF OPEN TRENCH ON STREETS SHALL BE 400 FEET. AT THE END OF EACH DAY, ALL TRENCHES MUST BE BACKFILLED OR COVERED WITH STEEL PLATES OR BARRICADED WITH FLASHING WARNING LIGHTS.
- ALL PIPE TRENCH BACKFILL SHALL BE IN ACCORDANCE WITH THE WSDOT/APWA SPECIFICATIONS FOR PIPE BEDDING AND BANK RUN GRAVEL IF PROPER COMPACTION CANNOT BE OBTAINED USING NATIVE SOIL, EXCEPT AS NOTED ON PLAN.
- POWER, TELEVISION CABLE, AND COMMUNICATIONS LINES SHALL BE INSTALLED WITH A MINIMUM OF FIVE FEET HORIZONTAL SEPARATION FROM PUBLIC WATER, SEWER AND STORM DRAINAGE FACILITIES.

**EROSION CONTROL NOTES**

- THE CONTRACTOR SHALL APPLY ALL MEASURES NECESSARY TO PREVENT THE DISCHARGE OF SEDIMENT-LADEN WATER OFF THE PROJECT SITE. FACILITIES SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS.
- THE CONTRACTOR SHALL INSPECT AND MAINTAIN ALL EROSION CONTROL FACILITIES REGULARLY, PARTICULARLY DURING AND FOLLOWING LARGE STORMS.
- ALL STREETS ADJACENT TO THIS PROJECT SHALL BE KEPT CLEAN OF ALL MATERIAL DEPOSITS RESULTING FROM CONSTRUCTION.
- SITE WORK SHALL BE SCHEDULED TO MINIMIZE THE EXPOSURE OF DISTURBED SOILS. ALL EXPOSED AND UNWORKED SOILS, INCLUDING SOIL STOCKPILES, SHALL BE STABILIZED BY SUITABLE APPLICATION OF BMPs THAT PROTECT SOIL FROM THE EROSION FORCES OF RAINDROP IMPACT AND FLOWING WATER. APPLICABLE PRACTICES INCLUDE, BUT ARE NOT LIMITED TO VEGETATIVE ESTABLISHMENT, MULCHING, PLASTIC COVERING, AND THE EARLY APPLICATION OF GRAVEL BASE ON AREAS TO BE PAVED. FROM OCTOBER 1 THROUGH APRIL 30, NO SOILS SHALL REMAIN EXPOSED FOR MORE THAN 2 DAYS. FROM MAY 1 THROUGH SEPTEMBER 30, NO SOILS SHALL REMAIN EXPOSED FOR MORE THAN 7 DAYS.
- CARE SHALL BE TAKEN TO PREVENT ANY DISCHARGE OF SEDIMENT-LADEN WATER INTO THE STORMWATER SYSTEMS. ANY INLETS WHICH RECEIVE RUNOFF SHOULD BE PROTECTED WITH SEDIMENT FILTERS.
- PETROLEUM PRODUCTS AND OTHER POTENTIAL POLLUTANTS SHALL BE PROTECTED TO PREVENT THEIR INTRODUCTION INTO SITE RUNOFF OR THE STORM DRAINAGE SYSTEM.
- DEWATERING WATER SHALL BE FILTERED TO REMOVE SEDIMENT AND DISCHARGED IN A MANNER TO AVOID DOWNSTREAM IMPACTS.
- CLEARING LIMITS, IF SHOWN, SHALL BE CLEARLY FLAGGED PRIOR TO ANY CLEARING OR CONSTRUCTION ON THE SITE. DURING CONSTRUCTION, NO DISTURBANCE BEYOND THE FLAGGED CLEARING LIMITS SHALL BE PERMITTED. THE FLAGGING SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL ALL CONSTRUCTION IS APPROVED.
- ALL TEMPORARY EROSION CONTROL FACILITIES, INCLUDING PERIMETER CONTROLS, SHALL REMAIN IN PLACE UNTIL FINAL SITE CONSTRUCTION IS COMPLETE AND APPROVAL HAS BEEN RECEIVED FROM THE CITY.

**SANITARY SEWER**

- SANITARY SEWER PIPE SHALL BE PVC (ASTM D3034, SDR 35).
- TRENCHES SHALL BE BACKFILLED AND COMPACTED PRIOR TO TESTING OF THE SEWER MAIN.
- SIDE SEWER CONNECTIONS SHALL BE MADE BY A TAP TO AN EXISTING MAIN OR A WYE FROM A NEW MAIN. SIDE SEWERS SHALL BE 6" DIAMETER AT MINIMUM 2% SLOPE.
- SIDE SEWER STUBS SHALL BE CAPPED AND THE LOCATION MARKED WITH A 2"x4" STAKE EXTENDING FROM THE CAP TO AT LEAST 6" ABOVE GRADE. THE STAKE SHALL BE PAINTED WHITE AND MARKED "SEWER".
- MANHOLES SHALL MEET ASTM C478 WITH RUBBER GASKETED JOINTS MEETING ASTM C443. JOINTS AND LIFT HOLES SHALL BE GROUTED INSIDE AND OUTSIDE.
- ALL CONNECTIONS OF PVC PIPE TO MANHOLES SHALL BE MADE USING A/C X PVC SEWER ADAPTER GASKET BY ROMAC OR GPK PRODUCTS.
- SEWER LINES SHALL BE CLEANED AND PRESSURE TESTED PRIOR TO PAVING. TESTING SHALL INCLUDE VIDEO INSPECTION OF THE MAIN BY THE CONTRACTOR. IMMEDIATELY PRIOR TO VIDEO INSPECTION, ENOUGH WATER SHALL BE RUN DOWN THE LINE SO IT COMES OUT THE LOWER MANHOLE. A COPY OF THE VIDEO TAPE SHALL BE SUBMITTED TO THE CITY. ACCEPTANCE OF THE LINE WILL BE MADE AFTER THE TAPE HAS BEEN REVIEWED AND APPROVED BY THE INSPECTOR.
- ALL MANHOLES IN PUBLIC RIGHTS-OF-WAY SHALL BE ADJUSTED TO FINAL GRADE PRIOR TO FINAL PAVING.
- SANITARY SEWER FORCE MAIN SHALL BE 4" DIAMETER HIGH DENSITY POLYETHYLENE, DRISCOPIPE 1000, DR11 OR EQUAL. PIPE JOINING AND INSTALLATION SHALL BE PERFORMED STRICTLY IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS BY QUALIFIED INSTALLERS. FORCE MAIN SHALL BE PRESSURE TESTED IN ACCORDANCE WITH WSDOT/APWA STANDARDS FOR WATER MAINS. ALL FITTINGS SHALL BE BLOCKED IN ACCORDANCE WITH WATERMAIN DETAILS. INSTALL PIPE WITH 12 GAUGE COPPER TRACE WIRE SPLICED WITH SPLIT BOLT CONNECTIONS.



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XREF Filename:						AF	Date:
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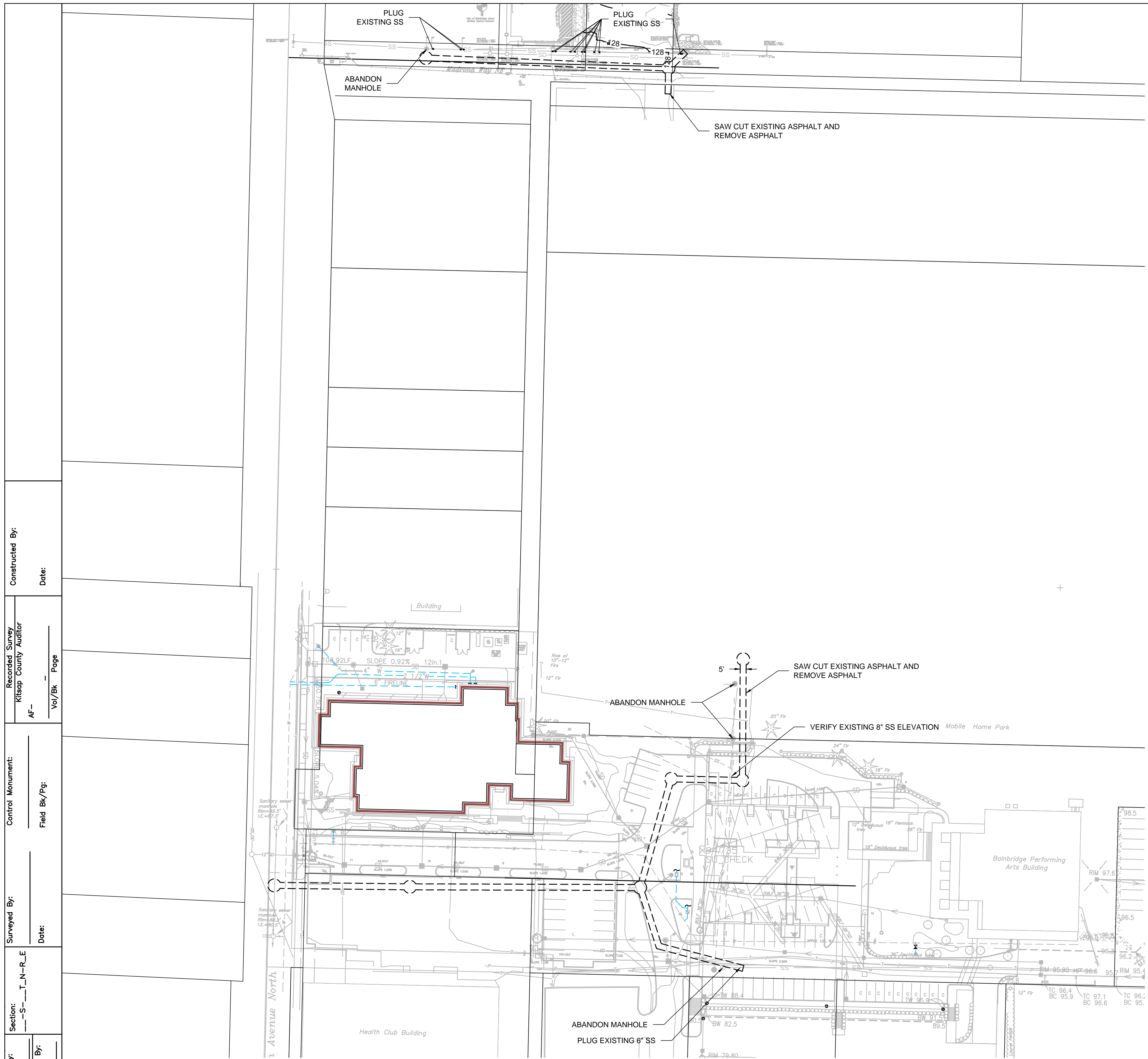
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**HENSHAW / MADRONA SEWER REPLACEMENT**

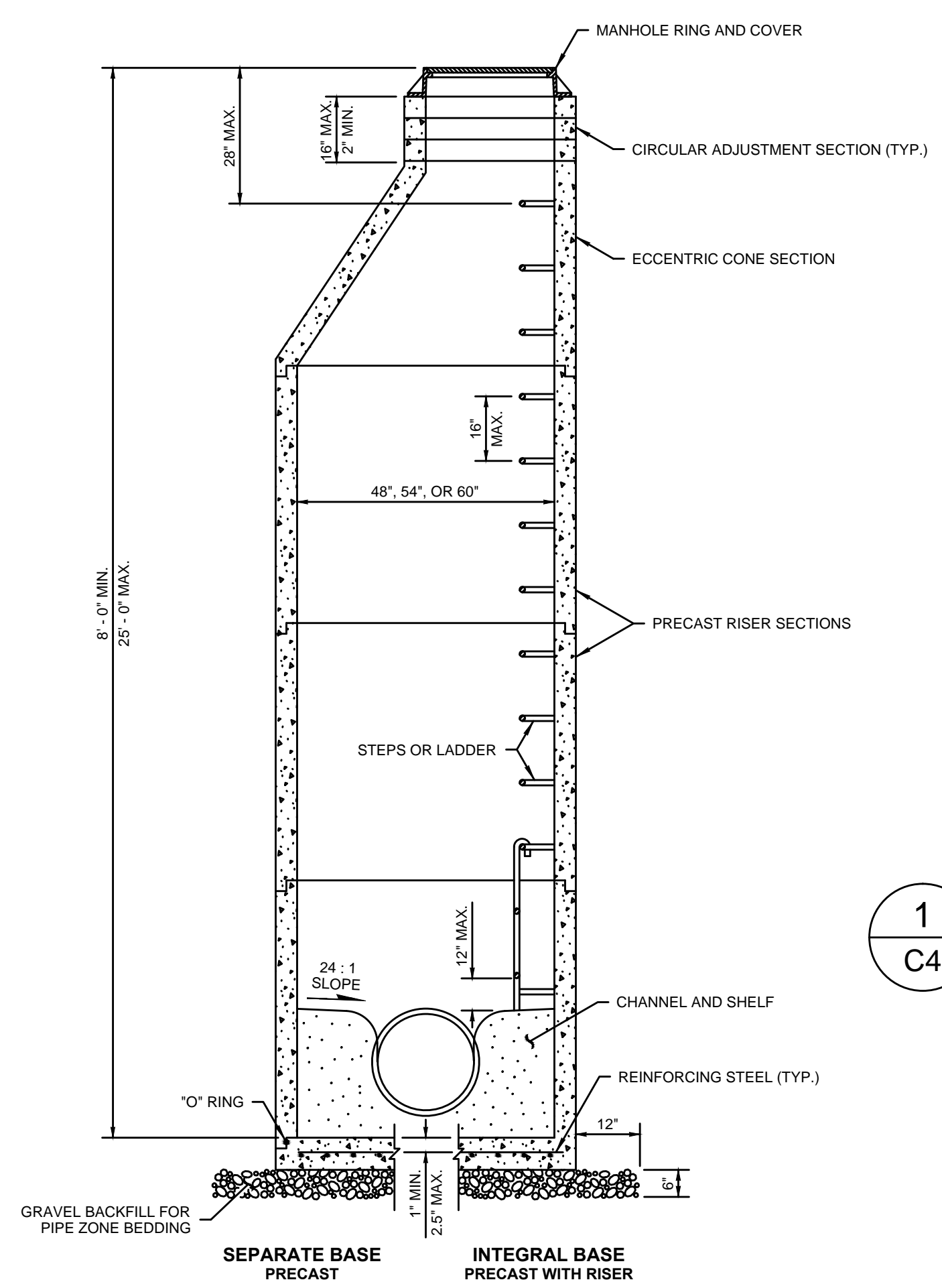
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**INDEX SHEET**  
**BID SET**

**C3**  
3 OF 6



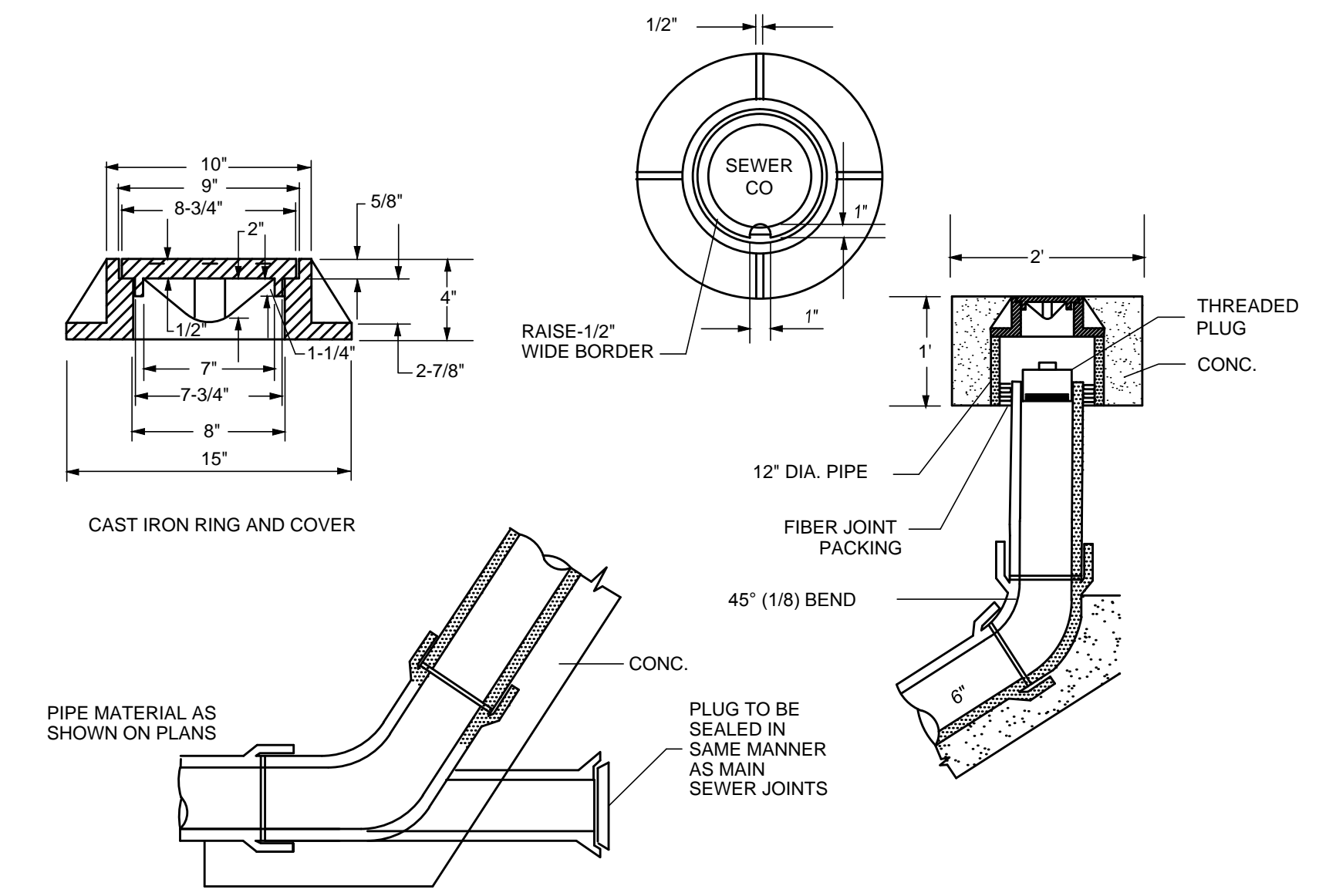
**OVERALL PLAN**  
SCALE: 1" = 50'



- NOTES**
- Knockouts shall have a wall thickness of 2" minimum to 2.5" maximum.
  - For pipe allowances, see **Standard Plan B-10.20**.

MANHOLE DIMENSION TABLE				
DIAM.	MIN. WALL THICKNESS	MIN. BASE THICKNESS	MAXIMUM KNOCKOUT SIZE	MINIMUM DISTANCE BETWEEN KNOCKOUTS
48"	4"	6"	36"	8"
54"	4.5"	8"	42"	8"
60"	5"	8"	48"	8"

**1**  
**C4** **MANHOLE TYPE 1**  
NO SCALE



**2**  
**C4** **SEWER CLEANOUT**  
NO SCALE

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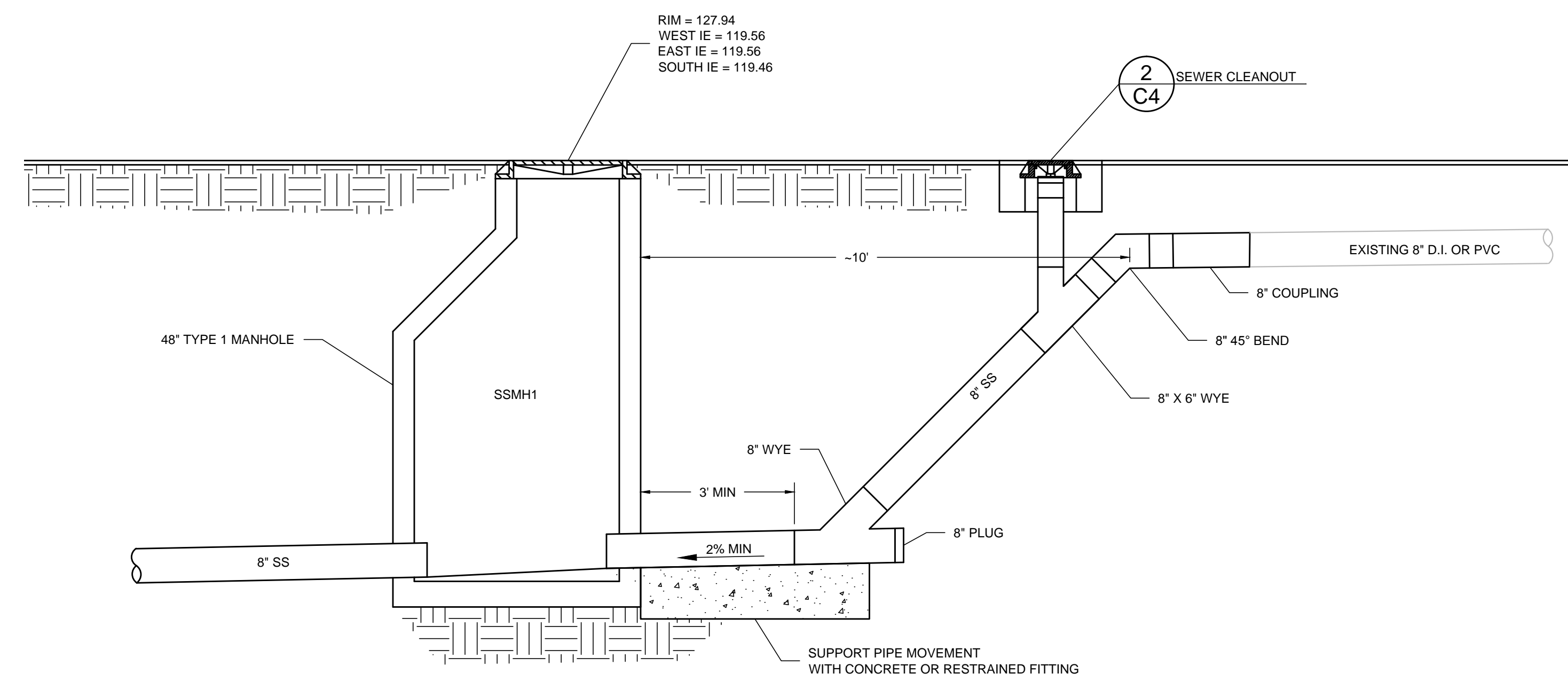
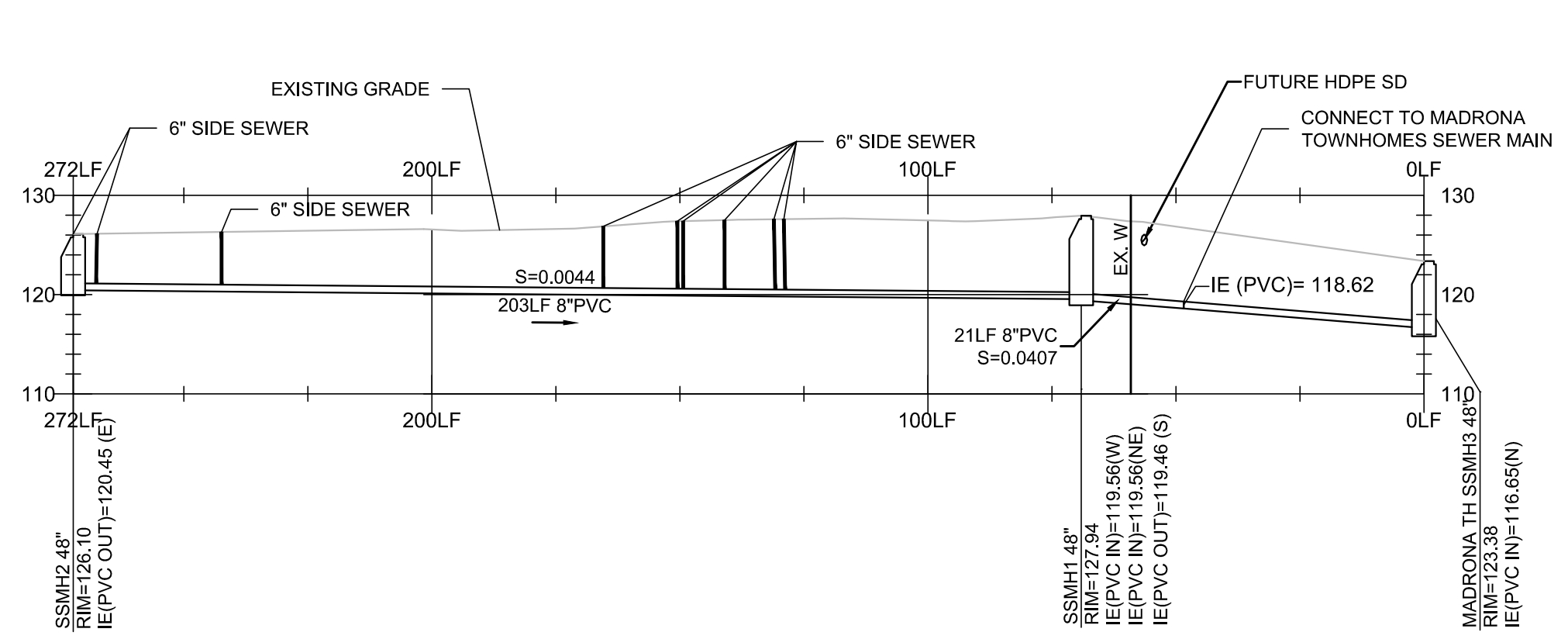
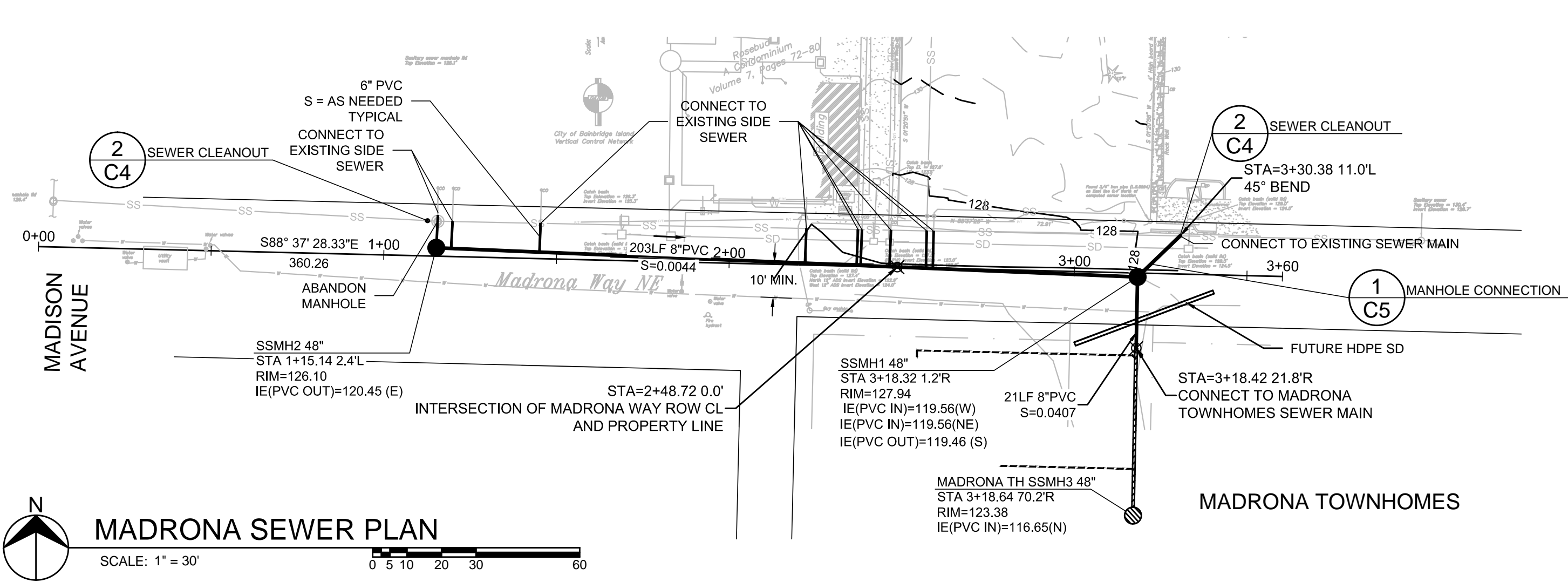
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**DEMO PLAN**  
**BID SET**

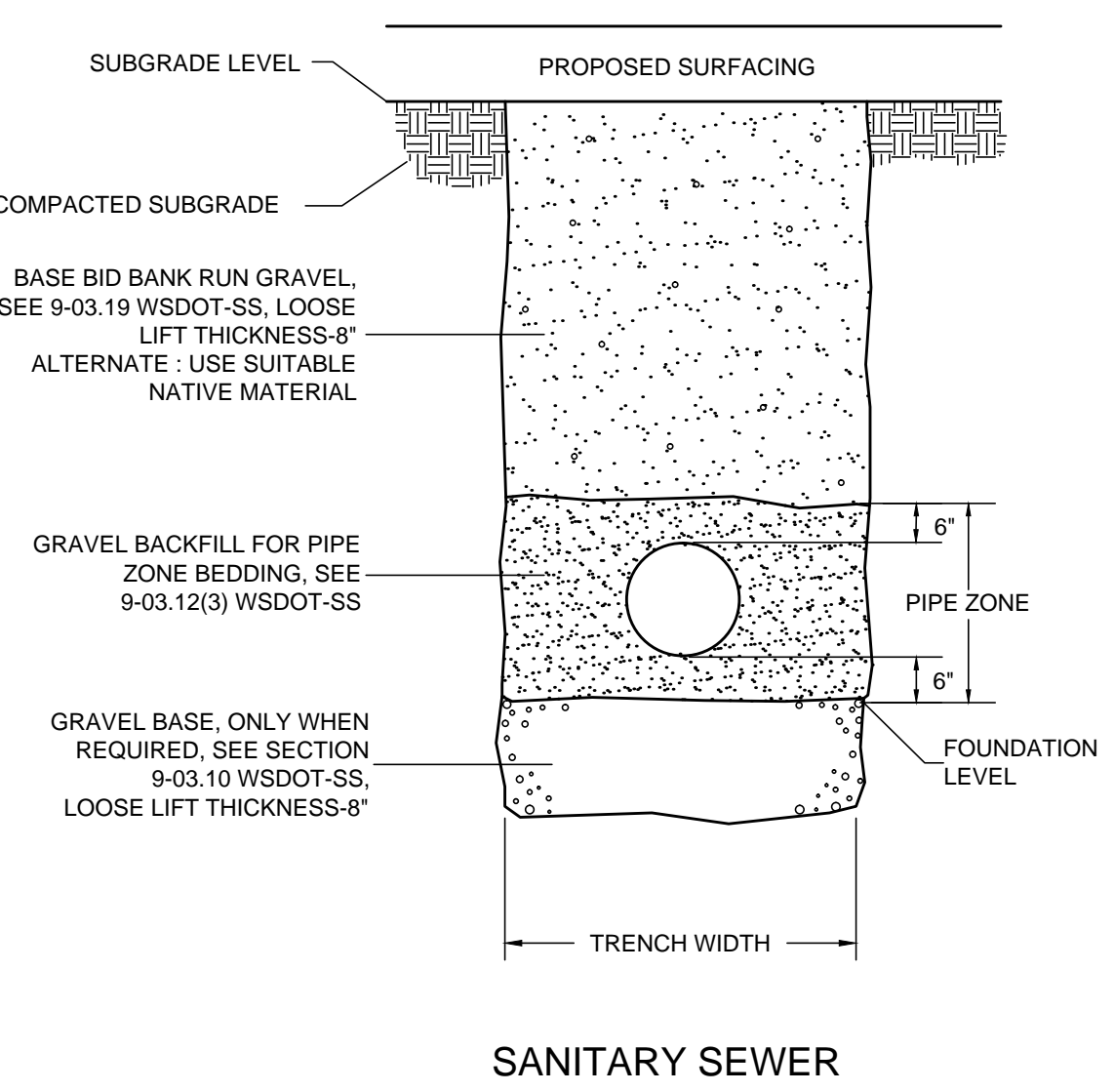
**C4**  
4 OF 6



**1 MANHOLE CONNECTION**  
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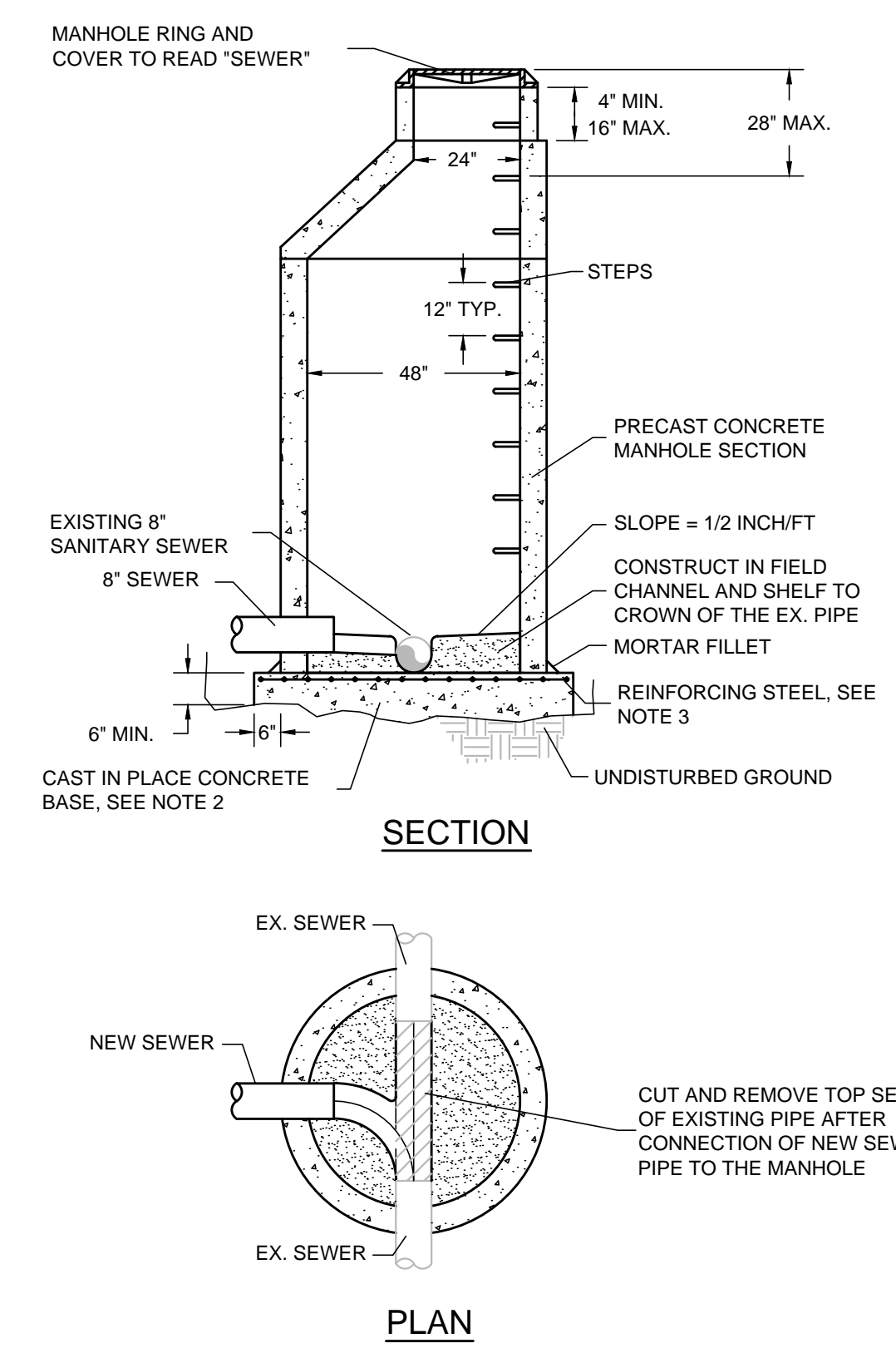
BACKFILL AND FOUNDATION MATERIAL COMPACTION REQUIREMENTS

SURFACE	W	SS/SD	SS/SD	POWER/COMM
	ALL PAVEMENT	LANDSCAPING	ALL	SEE PSE
DEPTH <2'	95%	95%	90%	SEE PSE
DEPTH >2'	95%	90%	90%	SEE PSE



**NOTES:**  
TRENCH WIDTH IN PIPE ZONE:  
MAX WIDTH=I.D. + 30" FOR PIPE 15" DIA. OR SMALLER  
MAX. WIDTH=1.5 x I.D. + 18" FOR PIPE 18" DIA. OR LARGER

**3 TRENCH BACKFILL**  
NO SCALE



**4 SADDLE MANHOLE**  
NO SCALE

- NOTES**
- STEPS IN MANHOLE SHALL HAVE 6 INCH MINIMUM CLEARANCE.
  - ALL REINFORCED CAST IN PLACE CONCRETE SHALL BE CLASS 4000. NON-REINFORCED CONCRETE IN CHANNEL AND SHELF SHALL BE CLASS 3000. ALL PRECAST CONCRETE SHALL BE CLASS 4000.
  - ALL REINFORCING STEEL SHALL HAVE A MINIMUM YIELD STRENGTH OF 60,000 PSI AND BE PLACED IN THE UPPER HALF OF THE BASE WITH 1 INCH MINIMUM CLEARANCE. #5 REBAR SHALL BE PLACED ONE FOOT ON CENTER IN EACH DIRECTION.
  - CONSTRUCTION SEQUENCE:
    - EXCAVATE BELOW EXISTING SEWER MAIN A MINIMUM OF 6"
    - CUT GROOVES IN PRECAST SECTION TO FIT AROUND EXISTING SANITARY SEWER PIPE.
    - POUR REINFORCED BASE TO INVERT OF PIPE AND EMBED PRECAST SECTION INTO BASE.
    - CONSTRUCT CONCRETE CHANNEL IN MANHOLE.
    - INSTALL NEW SEWER
    - AFTER COMPLETION OF ONSITE SEWER LINE, CUT TOP OF EXISTING SEWER LINE OFF AND SMOOTH CHANNEL FROM NEW SEWER PIPE.

**MADRONA SEWER PROFILE** ALONG PIPE LINE  
SCALE: 1" = 30' H  
1" = 10' V

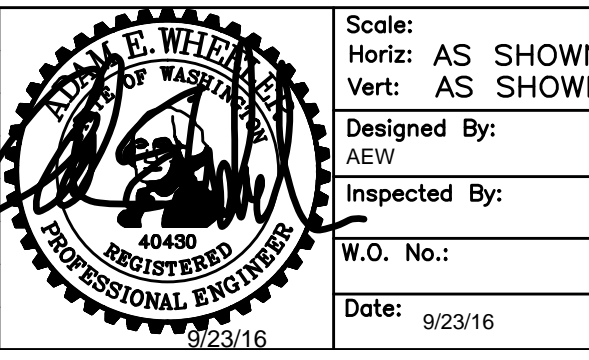
**NOTE:**  
CONTRACTOR TO REPLACE ANY SIDEWALK, CURB AND GUTTER, PAVING, SIDEWALK RAMP OR LANDSCAPING DISTURBED OR DAMAGED BY THE CONSTRUCTION IN ACCORDANCE WITH THE CITY OF BAINBRIDGE ISLAND DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS.

**2 ACP RESTORATION**  
NO SCALE

- LONGITUDINAL TRENCH. REMOVE AND REPLACE EXISTING PAVEMENT (2" MIN THICKNESS) FULL WIDTH OF DISTURBED LANE.  
TRANSVERSE TRENCH. REMOVE AND REPLACE EXISTING PAVEMENT (2" MIN THICKNESS) SEE ABOVE FOR WIDTH.  
ASPHALT SHALL BE CLASS B COMPACTED IN 2" MAXIMUM LIFTS.
  - EXISTING PAVEMENT
  - 95% COMPACTION TO 8" DEPTH, 90% BELOW, SEE UTILITY TRENCH BACKFILL DETAIL FOR MATERIAL SPECIFICATION.
  - STRAIGHT SAW CUT FULL DEPTH, CLEAN, HEAT & TACK EDGES WITH SEALER & SEAL WITH ASPHALT CEMENT
- TEMPORARY RESTORATION OF TRENCHES FOR OVERNIGHT USE SHALL BE ACCOMPLISHED BY USING COLD MIX, ATB OR STEEL PLATES. PATCH SHALL BE MACHINE ROLLED FLUSH WITH EXISTING PAVEMENT AND SHALL BE PLACED PER SECTION 5-04 OF THE WSDOT/APWA SPECIFICATIONS.

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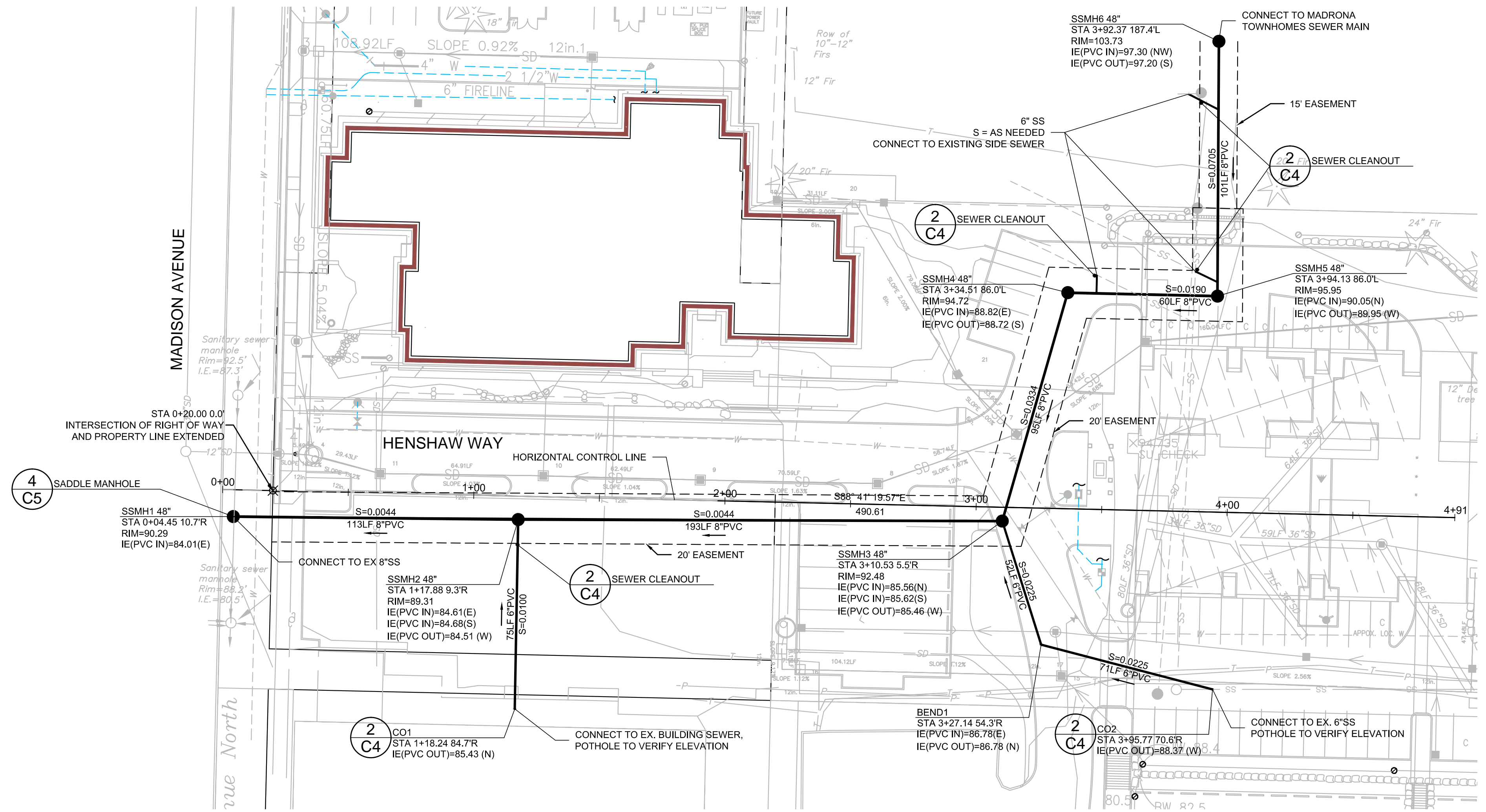
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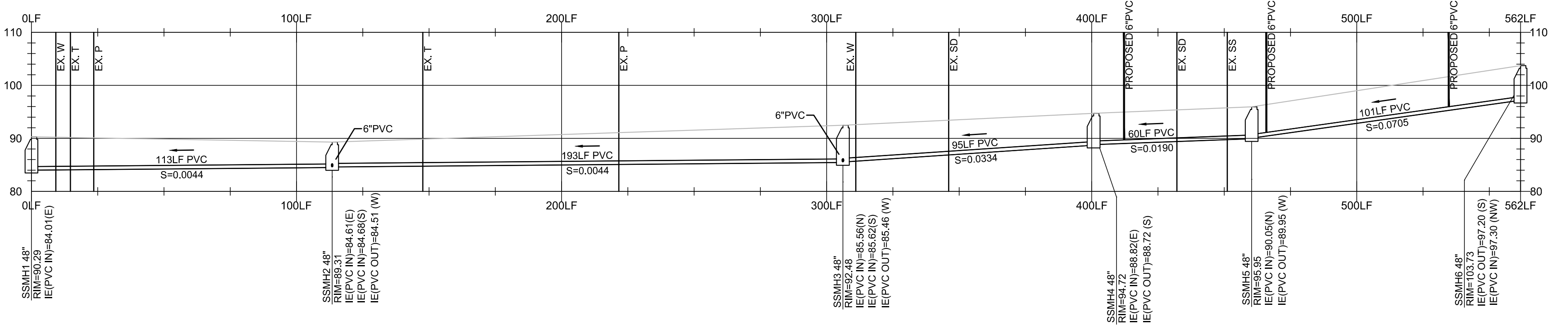
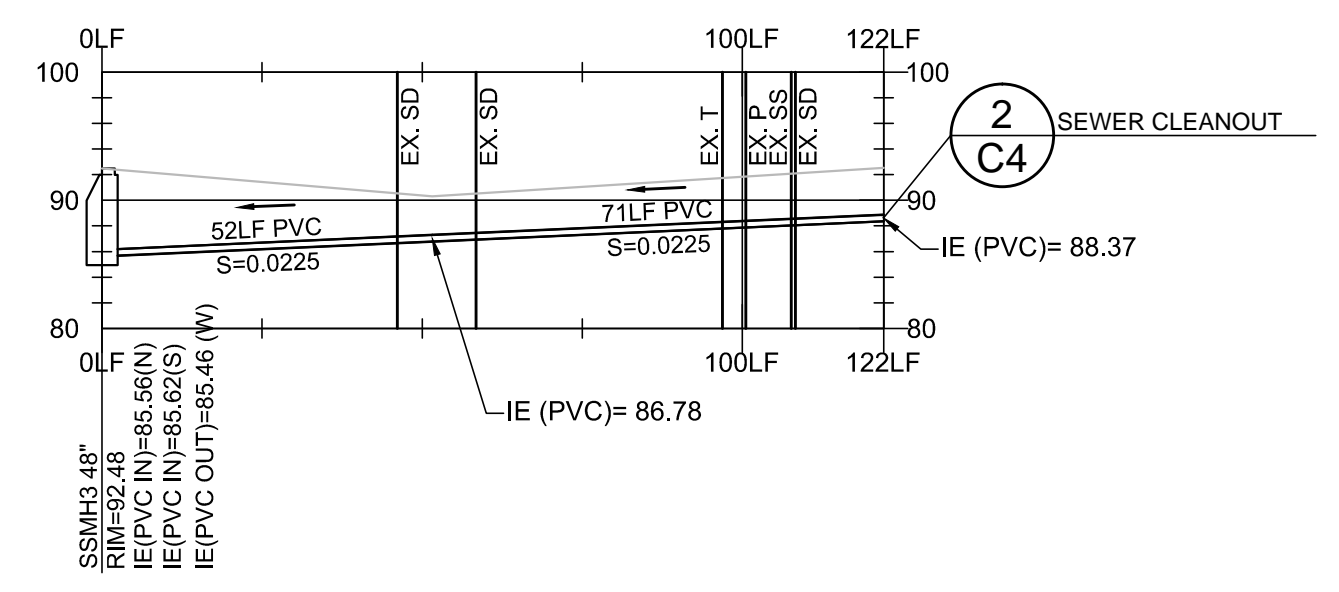
**MADRONA PLAN AND PROFILE**

**BID SET**

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 Control Monument: \_\_\_\_\_  
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