

BIRCHFIELD MOBILE HOME PARK 1

ONALASKA, WA

CIVIL IMPROVEMENTS PLANS



PROJECT DATA

PARCEL:	017104124059
APPLICANT:	VIRGIL FOX
SITE ADDRESS:	221 BIRCHFIELD PKWY ONALASKA, WA 98570
ZONING:	RDD-10
SITE AREA:	16.33 AC (PER COUNTY DATA)
GRADING QUANTITIES:	CUT: 2,102 CY FILL: 2,020 CY NET: 82 CY (CUT)
SANITARY SEWER:	CITY SEWER VIA LIFT STATION
WATER:	CITY WATER
FIRE DISTRICT:	LEWIS COUNTY FIRE DISTRICT #1
DUS SERVED BY PRIVATE ROAD:	20

SITE COVERAGE DATA

EXISTING HARD SURFACE:	0	SF
EXISTING HARD SURFACE TO REMAIN:	0	SF
REPLACED HARD SURFACE:	0	SF
CONVERTED IMPERVIOUS TO PERVIOUS:	0	SF
NEW HARD SURFACE:	43,473	SF
TOTAL NEW & REPLACED HARD SURFACE:	43,473	SF
TOTAL HARD SURFACE AFTER PROJECT:	43,473	SF
EFFECTIVE HARD SURFACE:	0	SF
DISTURBED AREA:	140,602	SF

GEOTECHNICAL INFORMATION
A GEOTECHNICAL REPORT WAS NOT PREPARED FOR THIS PROJECT. IN LIEU OF A REPORT, ALL CONSTRUCTION SHALL COMPLY WITH THE STANDARD SPECIFICATIONS REFERENCED.

BASIS OF BEARING
LEWIS COUNTY BOUNDARY LINE ADJUSTMENT NO. 21-0013 AS RECORDED UNDER AUDITOR'S FILE NUMBER 3553269, RECORDS OF LEWIS COUNTY, WASHINGTON.

TOPOGRAPHIC DATA
TOPOGRAPHIC INFORMATION DEPICTED IN THESE DRAWINGS WAS PROVIDED IN A SURVEY BY BUTLER SURVEYING, PROVIDED ON 9/18/2023.

ALL EXISTING FEATURES AND TOPOGRAPHY SHOWN SHALL BE VERIFIED PRIOR TO BEGINNING CONSTRUCTION. ANY AND ALL DISCREPANCIES FOUND BETWEEN ACTUAL EXISTING CONDITIONS AND THE EXISTING CONDITIONS SHOWN HERE SHALL BE IDENTIFIED TO THE PROJECT ENGINEER PRIOR TO CONTINUANCE OF ANY WORK.

VERTICAL DATUM IS ASSUMED.

WORK IN COUNTY RIGHT OF WAY
CONTRACTOR SHALL OBTAIN A RIGHT OF WAY PERMIT PRIOR TO COMMENCING ANY WORK LOCATED IN THE COUNTY'S RIGHT OF WAY. ALL WORK PERFORMED IN THE COUNTY'S RIGHT OF WAY SHALL ADHERE TO DRAWINGS, STANDARD SPECIFICATIONS, AND REQUIREMENTS OUTLINED IN THE RIGHT OF WAY PERMIT.

RECORD DRAWINGS
THE IRIS GROUP IS REQUIRED BY THE COUNTY TO PROVIDE RECORD DRAWING CERTIFICATION PRIOR TO FINAL COUNTY ACCEPTANCE. THE IRIS GROUP WILL NOT CERTIFY RECORD DRAWINGS WITHOUT INSPECTION OF BELOW GRADE UTILITIES AND STRUCTURES. PRIOR TO BACKFILLING, CONTRACTOR SHALL NOTIFY THE IRIS GROUP OF NECESSARY INSPECTIONS.

SHEET LIST

#	SHEET	TITLE
1	C1	COVER
2	C2	HORIZONTAL CONTROL
3	C3	DEMOLITION AND TESC
4	C4	SITE
5	C5	ROAD A PLAN AND PROFILE
6	C6	ROAD B PLAN AND PROFILE
7	C7	GRADING
8	C8	DRAINAGE
9	C9	SANITARY SEWER
10	C10	WATER
11	C11	DETAILS 1
12	C12	DETAILS 2
13	C13	DETAILS 3
14	C14	NOTES

PROJECT SPECIFICATIONS

THE WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF CHEHALIS ENGINEERING DEVELOPMENT CODE (HEREAFTER "STANDARD SPECIFICATIONS") AND THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT) STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION.

ALSO INCORPORATED INTO THESE CONTRACT DOCUMENTS BY REFERENCE ARE:

- A. MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)
- B. LEWIS COUNTY ROW STANDARDS
- C. LEWIS COUNTY DRAINAGE STANDARDS
- D. THE INTERNATIONAL BUILDING CODE (IBC)
- E. INTERNATIONAL PLUMBING CODE (IPC)

CURRENT EDITIONS OF THESE STANDARDS SHALL BE USED WHICH EXIST ON THE DATE OF CONTRACT ACCEPTANCE.

CONTRACTOR SHALL OBTAIN COPIES OF THESE PUBLICATIONS AT CONTRACTOR'S OWN EXPENSE.

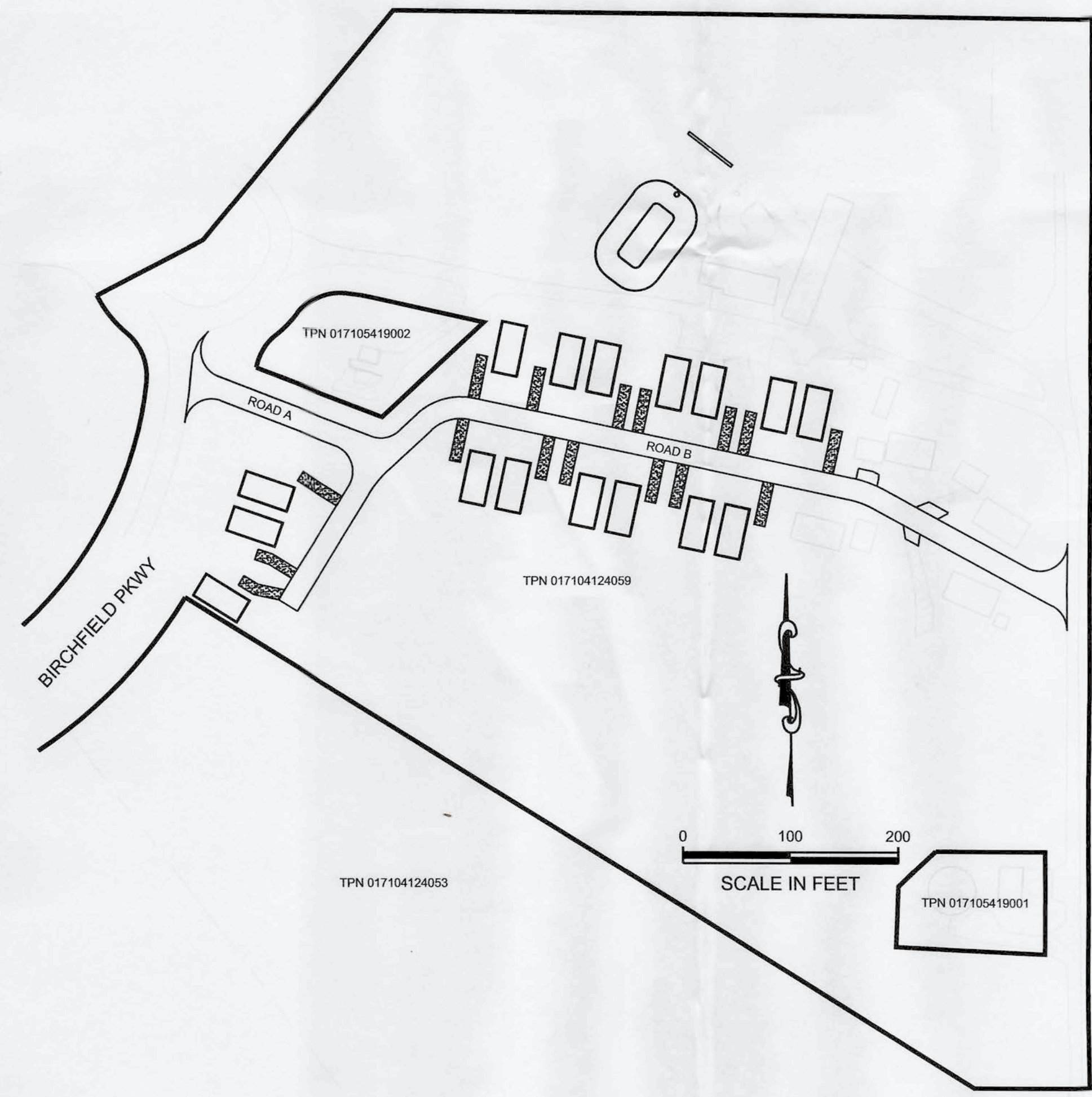
THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, TRANSPORTATION, SUPPLIES, AND INCIDENTALS REQUIRED TO COMPLETE ALL WORK SHOWN ON THESE DRAWINGS AND TO OBTAIN ACCEPTANCE BY THE COUNTY AND THE PROJECT OWNER.

THE INTENT OF THESE DRAWINGS IS TO PRESCRIBE A COMPLETE WORK. OMISSIONS FROM THE DRAWINGS OF DETAILS OF WORK WHICH ARE NECESSARY TO CARRY OUT THE INTENT OF THE DRAWINGS SHALL NOT RELIEVE THE CONTRACTOR FROM PERFORMING THE OMITTED WORK.

ANY PROPOSED ALTERATIONS BY THE CONTRACTOR AFFECTING THE REQUIREMENTS AND INFORMATION IN THESE DRAWINGS SHALL BE IN WRITING AND WILL REQUIRE APPROVAL OF THE ENGINEER AND INSPECTOR.

CONSTRUCTION NOTES

1. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR BEING FAMILIAR WITH THE PROVISIONS AND REQUIREMENTS CONTAINED IN JURISDICTIONAL STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL HAVE A COPY AVAILABLE AT THE JOB SITE AT ALL TIMES.
2. THE CONTRACTOR SHALL NOTIFY ALL PUBLIC OR PRIVATE UTILITY COMPANIES 48 HOURS PRIOR TO COMMENCEMENT OF WORK ADJACENT TO EXISTING UTILITY LINES UNLESS AN ENCROACHMENT PERMIT SPECIFIES OTHERWISE.
3. THE CONTRACTOR SHALL PROVIDE EMERGENCY TELEPHONE NUMBERS TO THE POLICE, FIRE, AND PUBLIC WORKS DEPARTMENTS AND KEEP THEM INFORMED DAILY REGARDING STREETS UNDER CONSTRUCTION AND DETOURS. DETOURS SHALL NOT BE PERMITTED UNLESS APPROVED IN WRITING BY THE PUBLIC WORKS DIRECTOR.
4. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN SUFFICIENT BARRICADES TO PROVIDE FOR THE SAFETY OF THE GENERAL PUBLIC TO THE SATISFACTION OF THE PUBLIC WORKS DIRECTOR.
5. ALL MATERIALS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNLESS OTHERWISE NOTED.
6. THE CONTRACTOR SHALL CONFORM TO EXISTING STREETS, SURROUNDING LANDSCAPE AND OTHER IMPROVEMENTS WITH A SMOOTH TRANSITION IN PAVING, CURBS, GUTTERS, SIDEWALKS, GRADING, ETC., AND AVOID ANY ABRUPT OR APPARENT CHANGES IN GRADES OR CROSS SLOPES, LOW SPOTS OR HAZARDOUS CONDITIONS.
7. THE CONTRACTOR SHALL COORDINATE ALL NECESSARY UTILITY RELOCATIONS, IF REQUIRED, WITH THE APPROPRIATE UTILITY COMPANIES.
8. THE CONTRACTOR SHALL CONDUCT ALL GRADING OPERATIONS IN SUCH A MANNER AS TO PRECLUDE WIND BLOWN DIRT AND DUST AND RELATED DAMAGE TO NEIGHBORING PROPERTIES. SUFFICIENT WATERING TO CONTROL DUST IS REQUIRED AT ALL TIMES. THE CONTRACTOR SHALL ASSUME ALL LIABILITY FOR CLAIMS RELATED TO WIND BLOWN MATERIAL. IF THE DUST CONTROL IS INADEQUATE AS DETERMINED BY THE PUBLIC WORKS DIRECTOR OR HIS DESIGNATED REPRESENTATIVE, THE CONSTRUCTION WORK SHALL BE TERMINATED UNTIL SUCH CORRECTIVE MEASURES ARE TAKEN.
9. SITE WORK FOR THIS PROJECT SHALL MEET OR EXCEED THE LEWIS COUNTY, WA DEVELOPMENT GUIDELINES AND PUBLIC WORKS STANDARDS, AS WELL AS THE WSDOT STANDARD SPECIFICATIONS, WHICH ARE HERE BY REFERENCED AS PART OF THESE PLANS.
10. THE DESIGN SHOWN IS BASED UPON THE ENGINEER'S UNDERSTANDING OF THE EXISTING CONDITIONS. THIS PLAN DOES NOT REPRESENT A DETAILED FIELD SURVEY.
11. CAUTION - NOTICE TO CONTRACTOR THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS.
12. ALL DETAILS PROVIDED IN THESE PLANS SHALL BE APPLIED TO ALL APPLICABLE PROPOSED CONSTRUCTION, REGARDLESS OF WHETHER OR NOT SPECIFIC REFERENCES TO APPLICABLE DETAILS ARE MADE.
13. POST CONSTRUCTION SOIL QUALITY AND DEPTH BMP DETAIL 1/C11 SHALL BE APPLIED TO ALL DISTURBED PERVIOUS AREAS.
14. SEE SHEET C14 FOR ADDITIONAL NOTES.



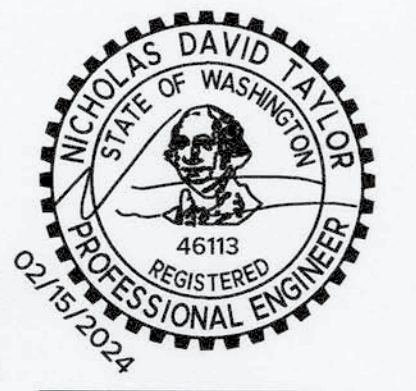
IRISGROUP
civil engineers
360-890-8955 | 299 N Market Blvd., Chehalis, WA 98532

BIRCHFIELD MOBILE HOME PARK 1
SE 1/4 SEC 23 T2N 13N R10E W1/2
017104124053
221 BIRCHFIELD PKWY
ONALASKA, WA 98570

COVER

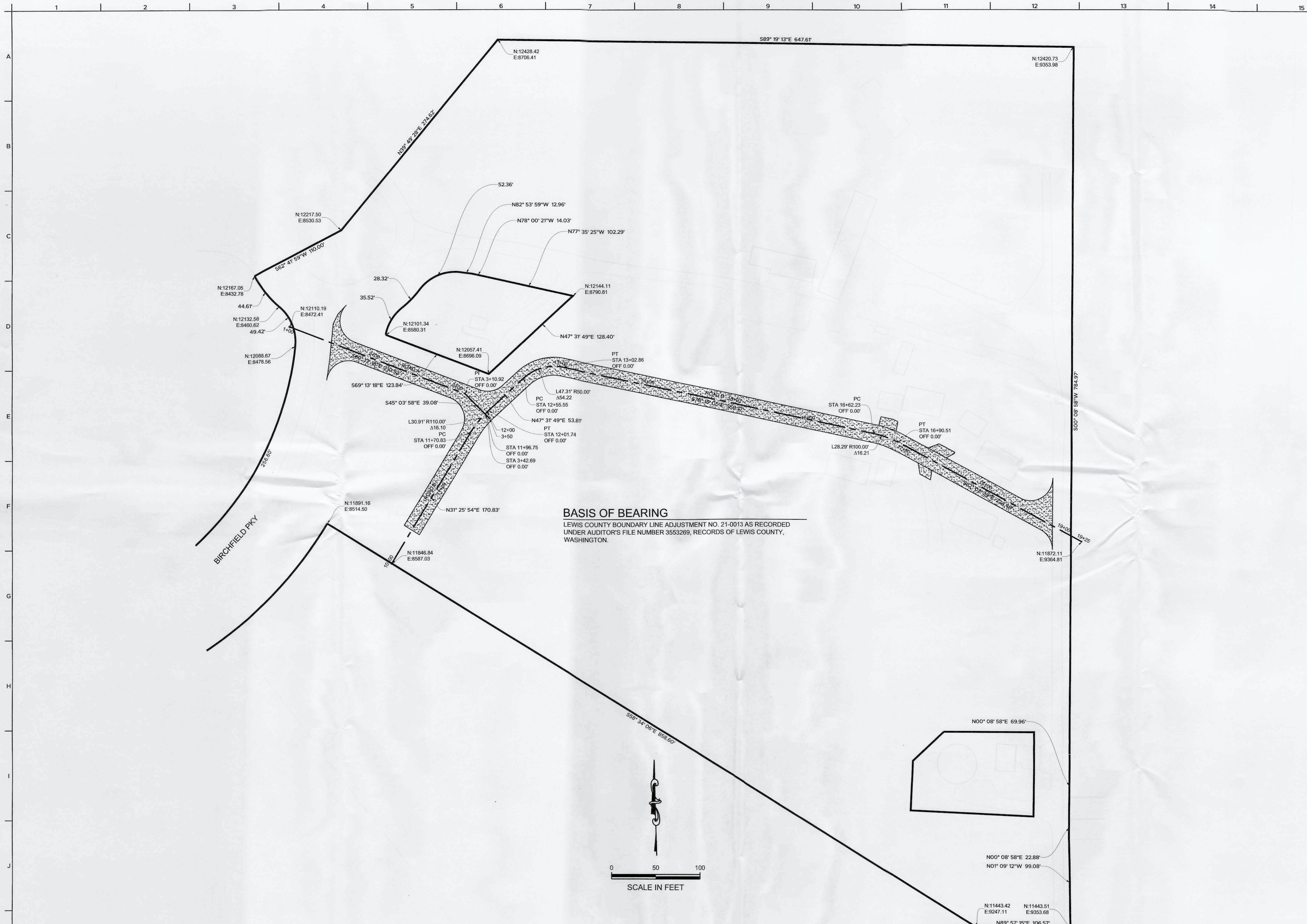
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REVIEWED BY:	NDT
DESIGNED BY:	NDT
DRAWN BY:	RCB
DATE:	02-15-2024

Know what's BELOW
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C1
1 of 14

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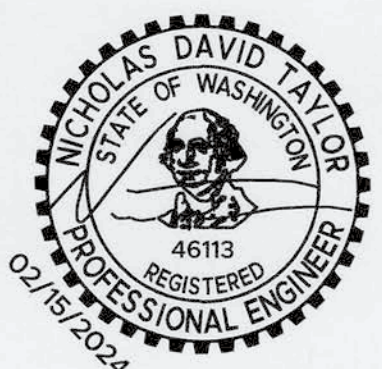
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**BIRCHFIELD
MOBILE HOME PARK 1**
SE 1/4 SEC 23 T4N 13N R10W
017704124053
221 BIRCHFIELD PKWY
ONALASKA, WA 98570

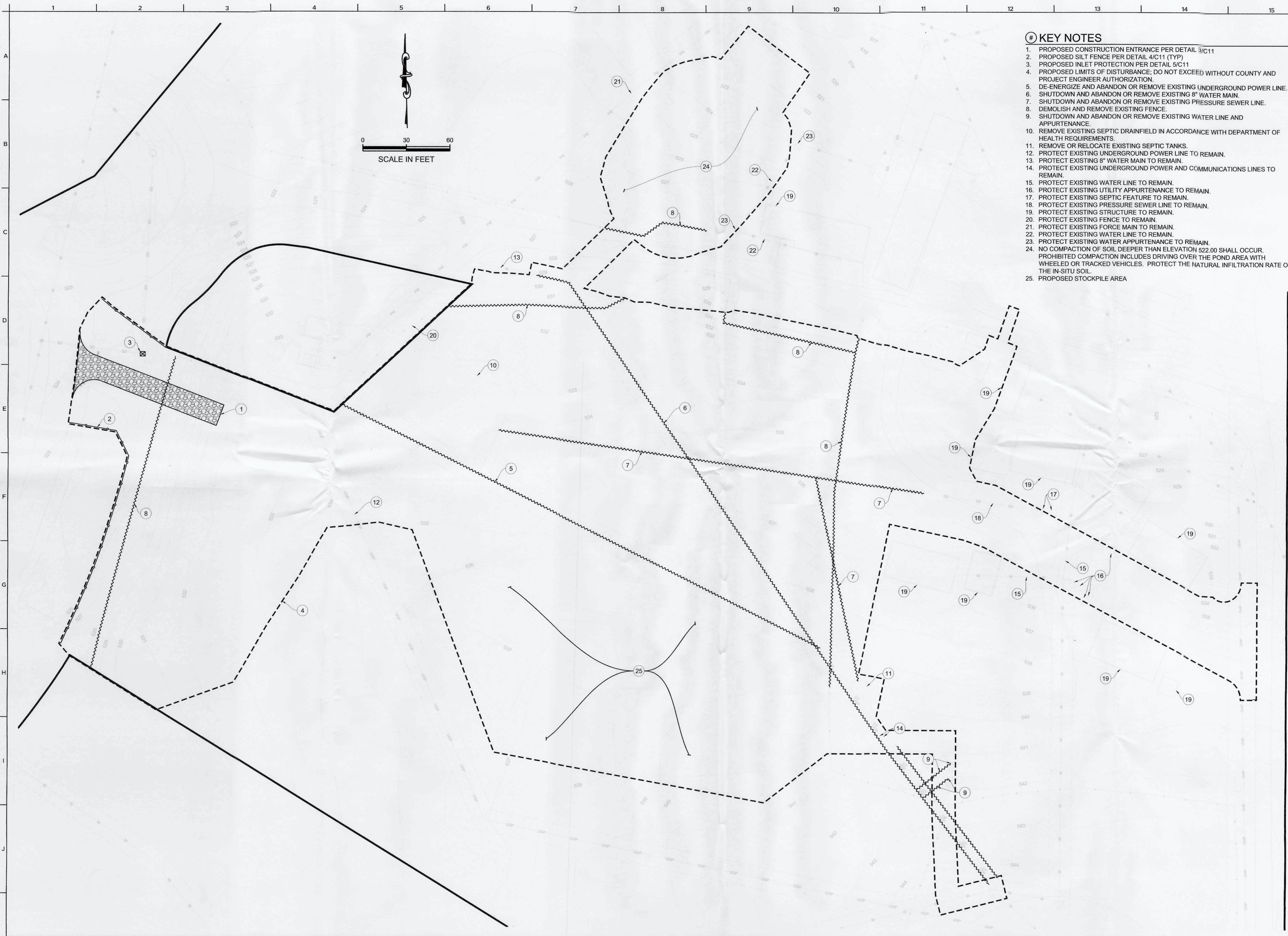
HORIZONTAL CONTROL

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C2
2 of 14



- KEY NOTES**
1. PROPOSED CONSTRUCTION ENTRANCE PER DETAIL 9/C11
 2. PROPOSED SILT FENCE PER DETAIL 4/C11 (TYP)
 3. PROPOSED INLET PROTECTION PER DETAIL 5/C11
 4. PROPOSED LIMITS OF DISTURBANCE, DO NOT EXCEED WITHOUT COUNTY AND PROJECT ENGINEER AUTHORIZATION.
 5. DE-ENERGIZE AND ABANDON OR REMOVE EXISTING UNDERGROUND POWER LINE.
 6. SHUTDOWN AND ABANDON OR REMOVE EXISTING 8" WATER MAIN.
 7. SHUTDOWN AND ABANDON OR REMOVE EXISTING PRESSURE SEWER LINE.
 8. DEMOLISH AND REMOVE EXISTING FENCE.
 9. SHUTDOWN AND ABANDON OR REMOVE EXISTING WATER LINE AND APPURTENANCE.
 10. REMOVE EXISTING SEPTIC DRAINFIELD IN ACCORDANCE WITH DEPARTMENT OF HEALTH REQUIREMENTS.
 11. REMOVE OR RELOCATE EXISTING SEPTIC TANKS.
 12. PROTECT EXISTING UNDERGROUND POWER LINE TO REMAIN.
 13. PROTECT EXISTING 8" WATER MAIN TO REMAIN.
 14. PROTECT EXISTING UNDERGROUND POWER AND COMMUNICATIONS LINES TO REMAIN.
 15. PROTECT EXISTING WATER LINE TO REMAIN.
 16. PROTECT EXISTING UTILITY APPURTENANCE TO REMAIN.
 17. PROTECT EXISTING SEPTIC FEATURE TO REMAIN.
 18. PROTECT EXISTING PRESSURE SEWER LINE TO REMAIN.
 19. PROTECT EXISTING STRUCTURE TO REMAIN.
 20. PROTECT EXISTING FENCE TO REMAIN.
 21. PROTECT EXISTING FORCE MAIN TO REMAIN.
 22. PROTECT EXISTING WATER LINE TO REMAIN.
 23. PROTECT EXISTING WATER APPURTENANCE TO REMAIN.
 24. NO COMPACTION OF SOIL DEEPER THAN ELEVATION 522.00 SHALL OCCUR. PROHIBITED COMPACTION INCLUDES DRIVING OVER THE POND AREA WITH WHEELED OR TRACKED VEHICLES. PROTECT THE NATURAL INFILTRATION RATE OF THE IN-SITU SOIL.
 25. PROPOSED STOCKPILE AREA

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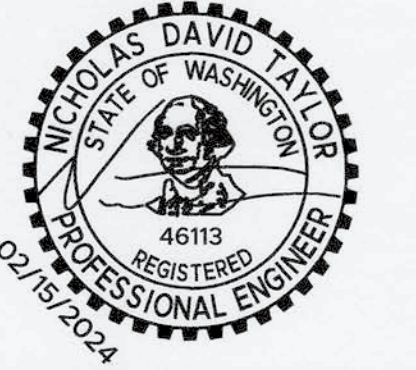
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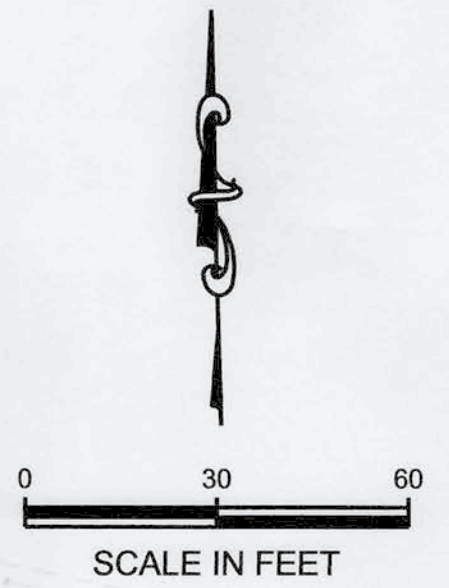
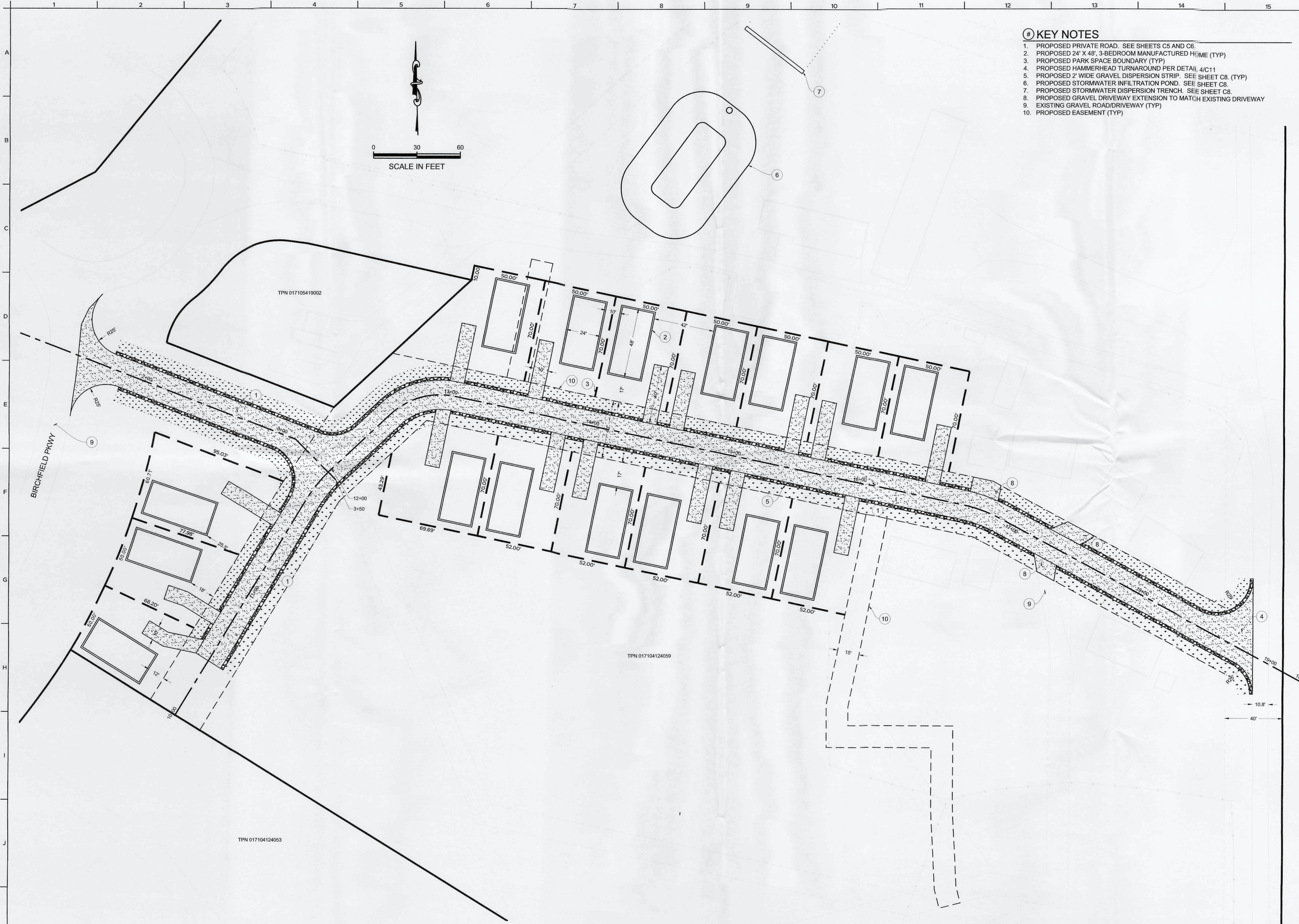
BIRCHFIELD
MOBILE HOME PARK 1
SE 1/4 SEC 23 T11N 13N R11W WM
240950000
BIRCHFIELD, WA 98570
221 BIRCHFIELD
ONALASKA, WA 98570

DEMOLITION AND TESC

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- # KEY NOTES**
1. PROPOSED PRIVATE ROAD. SEE SHEETS C5 AND C6.
 2. PROPOSED 24' X 48', 3-BEDROOM MANUFACTURED HOME (TYP)
 3. PROPOSED PARK SPACE BOUNDARY (TYP)
 4. PROPOSED HAMMERHEAD TURNAROUND PER DETAIL 4/C11
 5. PROPOSED 2' WIDE GRAVEL DISPERSION STRIP. SEE SHEET C8, (TYP)
 6. PROPOSED STORMWATER INFILTRATION POND. SEE SHEET C8.
 7. PROPOSED STORMWATER DISPERSION TRENCH. SEE SHEET C8.
 8. PROPOSED GRAVEL DRIVEWAY EXTENSION TO MATCH EXISTING DRIVEWAY
 9. EXISTING GRAVEL ROAD/DRIVEWAY (TYP)
 10. PROPOSED EASEMENT (TYP)

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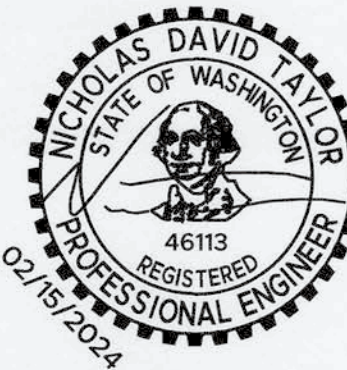
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BIRCHFIELD
MOBILE HOME PARK 1
SE 1/4 SEC 23 T14N 13N R14E W1W WM
017104124053
221 BIRCHFIELD PKWY
ONALASKA, WA 98570

SITE

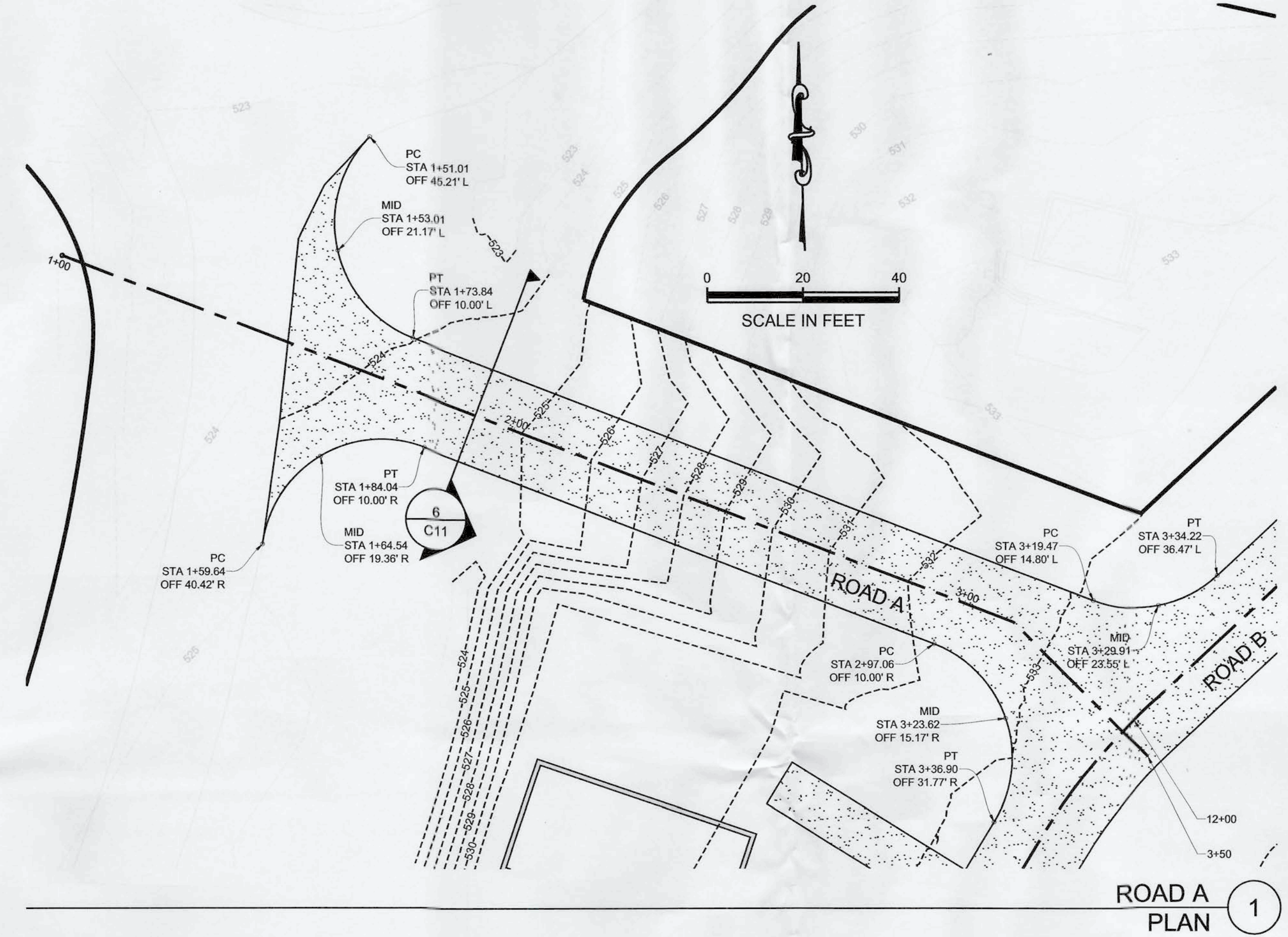
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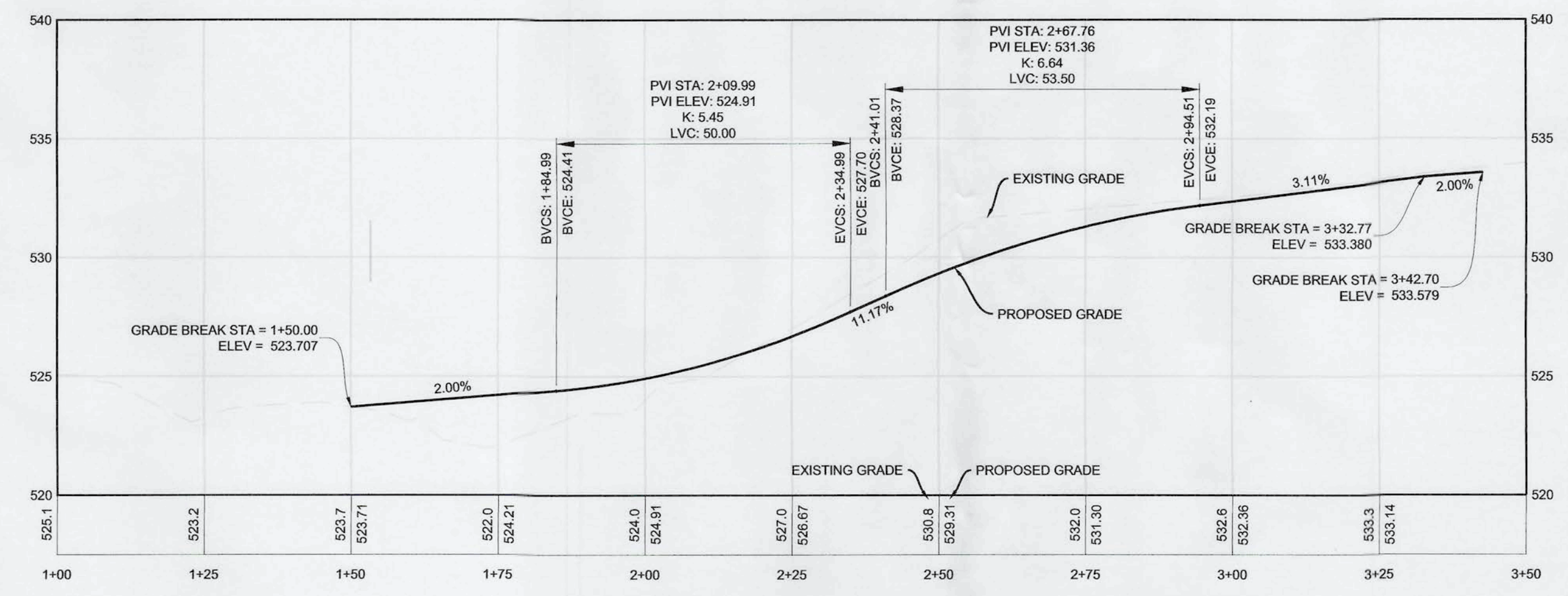


C4
4 of 14

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ROAD A PLAN 1



ROAD A PROFILE 2

HORIZONTAL SCALE : 1" = 20'
VERTICAL SCALE : 1" = 5'

BIRCHFIELD
MOBILE HOME PARK 1
SE 1/4 SEC 23 T14N 13N R14W 1W WM
07170472053
201 BIRCHFIELD WAY
ONALASKA, WA 98570

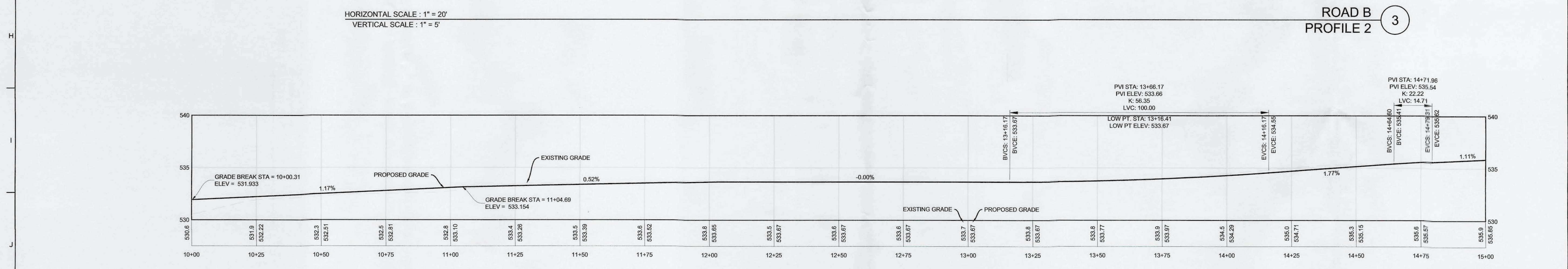
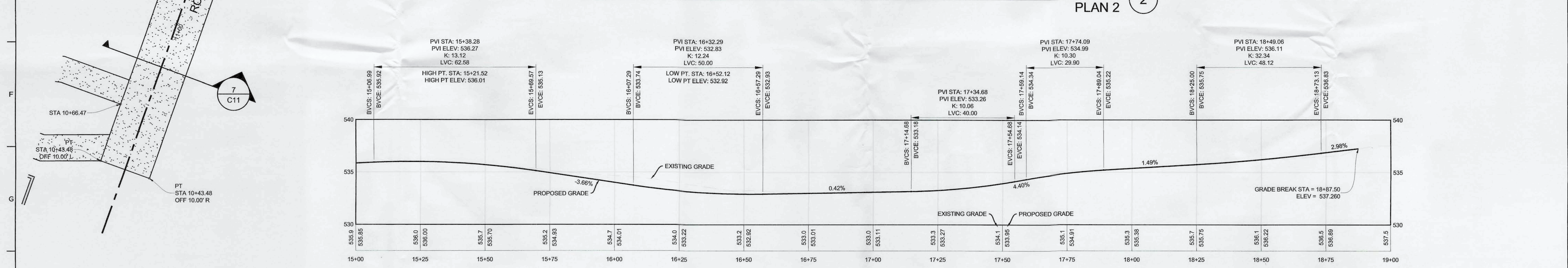
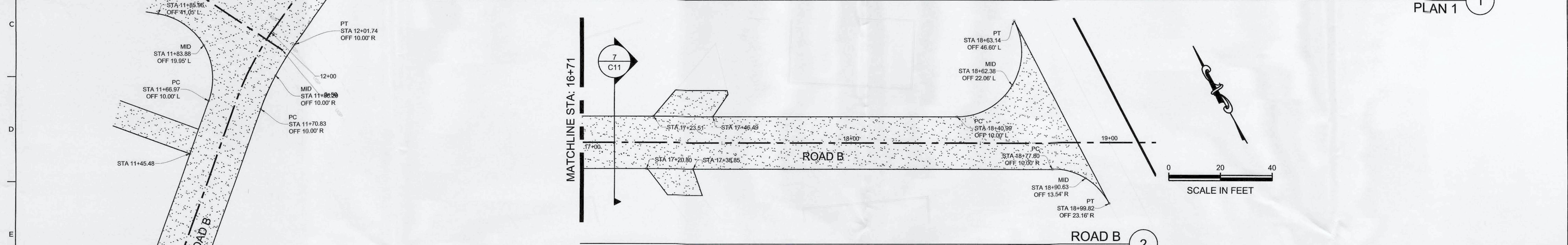
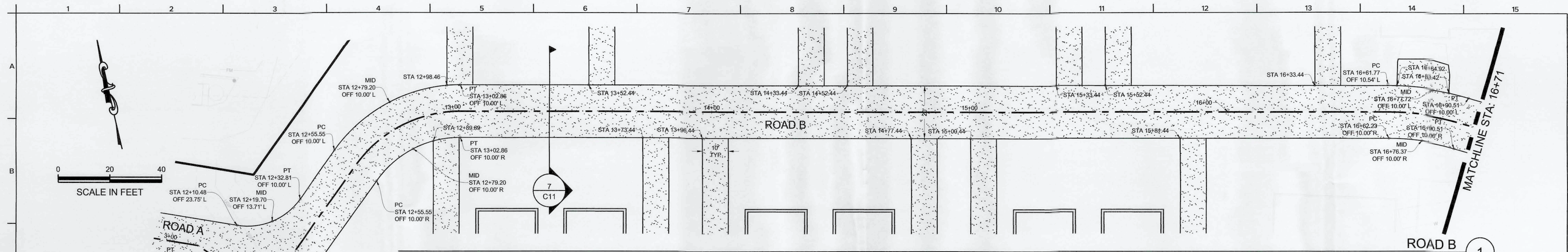
ROAD A PLAN AND PROFILE

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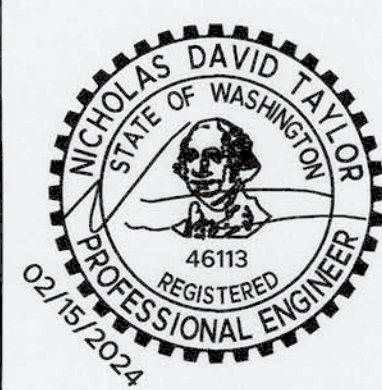
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BIRCHFIELD
MOBILE HOME PARK 1
SE 1/4 SEC 23 T11N 13N R1G 1W WM
017104124053
221 BIRCHFIELD PKWY
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ROAD B PLAN AND PROFILE

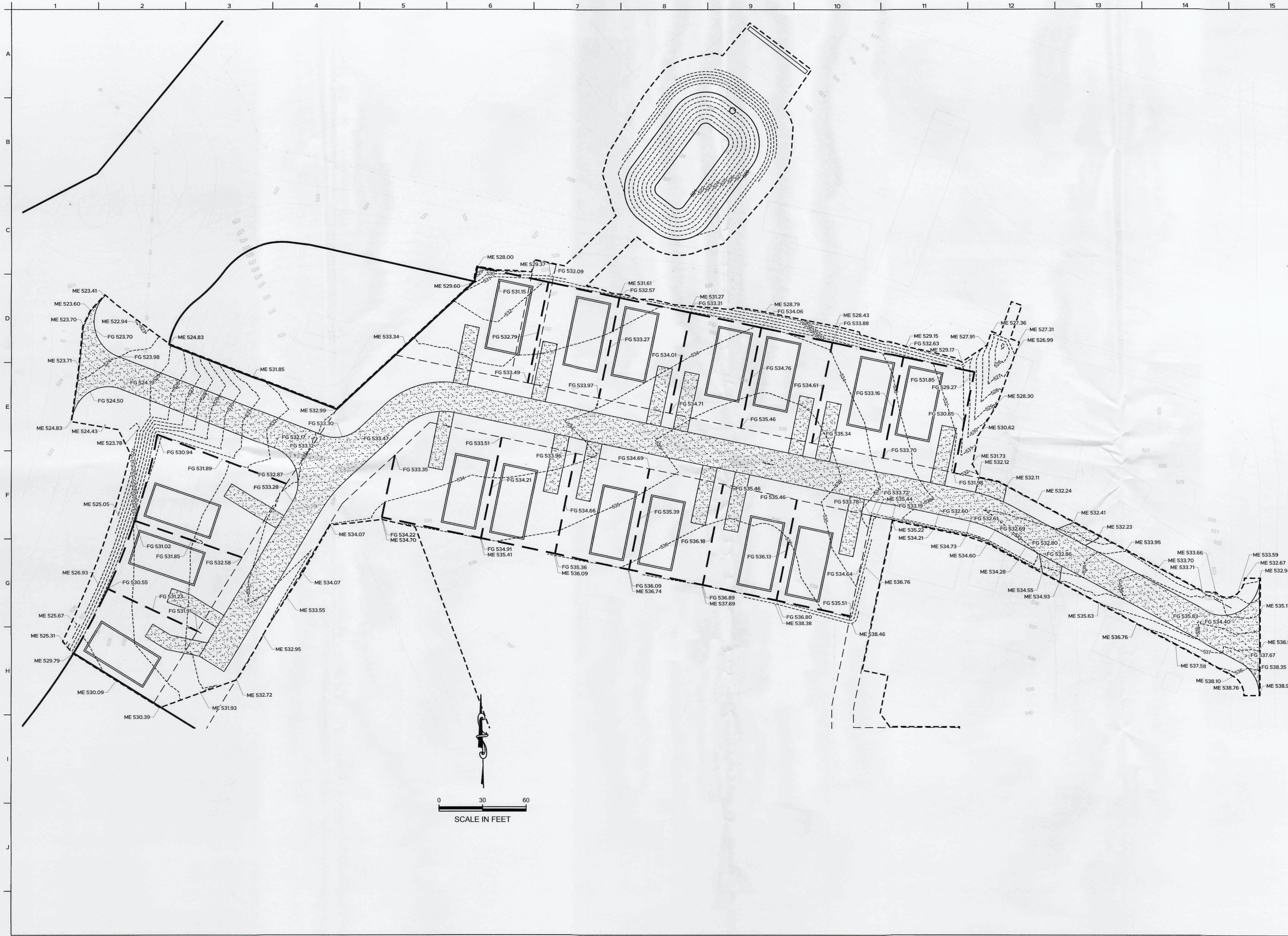
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C6
6 of 14

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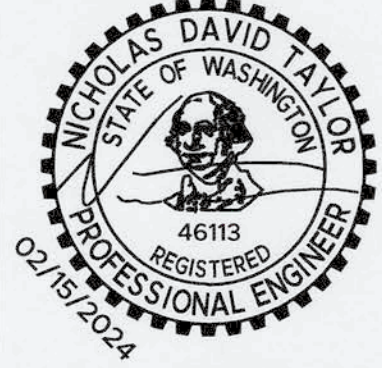
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BIRCHFIELD
MOBILE HOME PARK 1
SE 1/4 SEC 23 T4N 13N R1G 1W WM
017104124053
221 BIRCHFIELD PKWY
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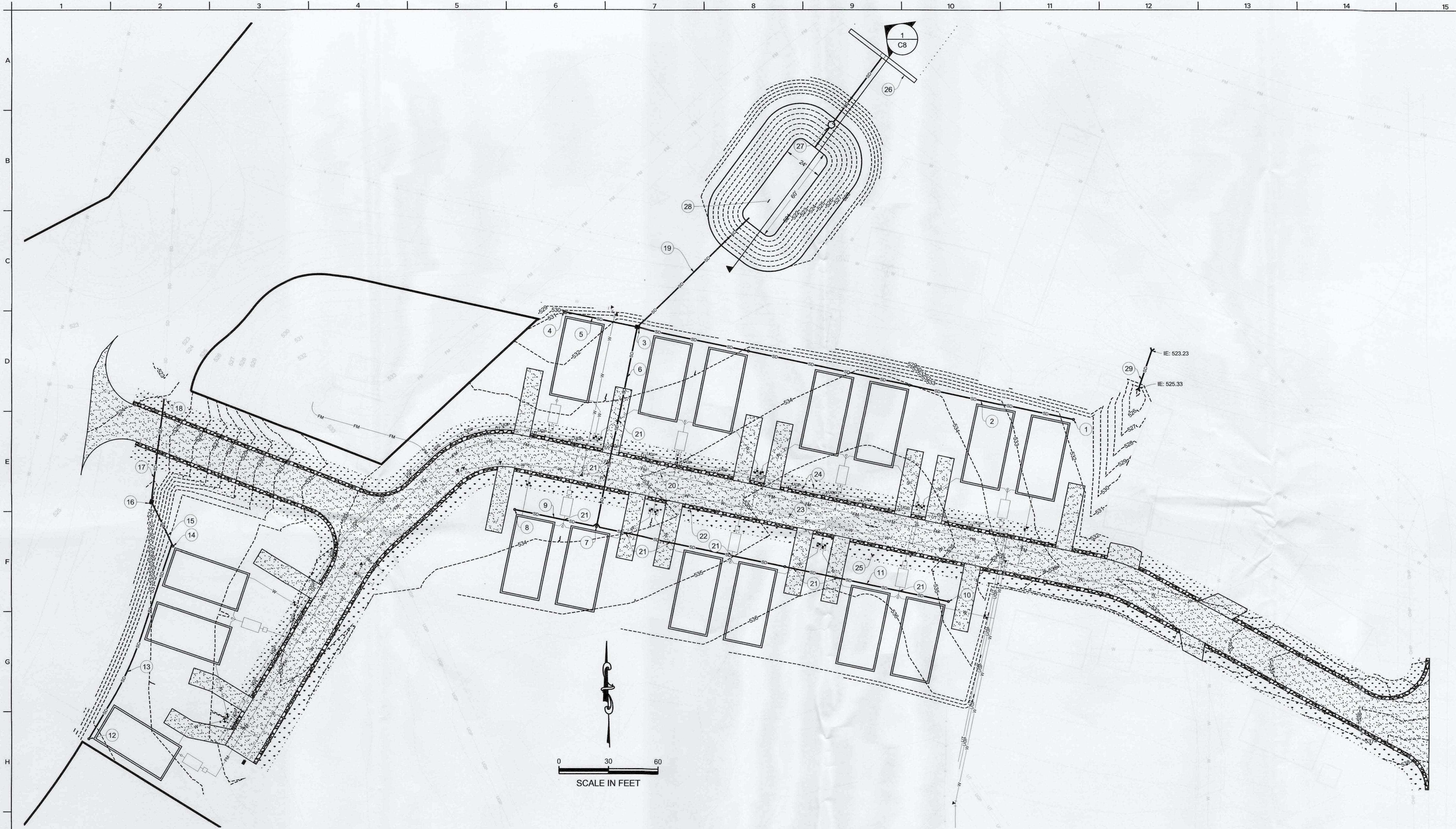
GRADING AND DRAINAGE

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C7
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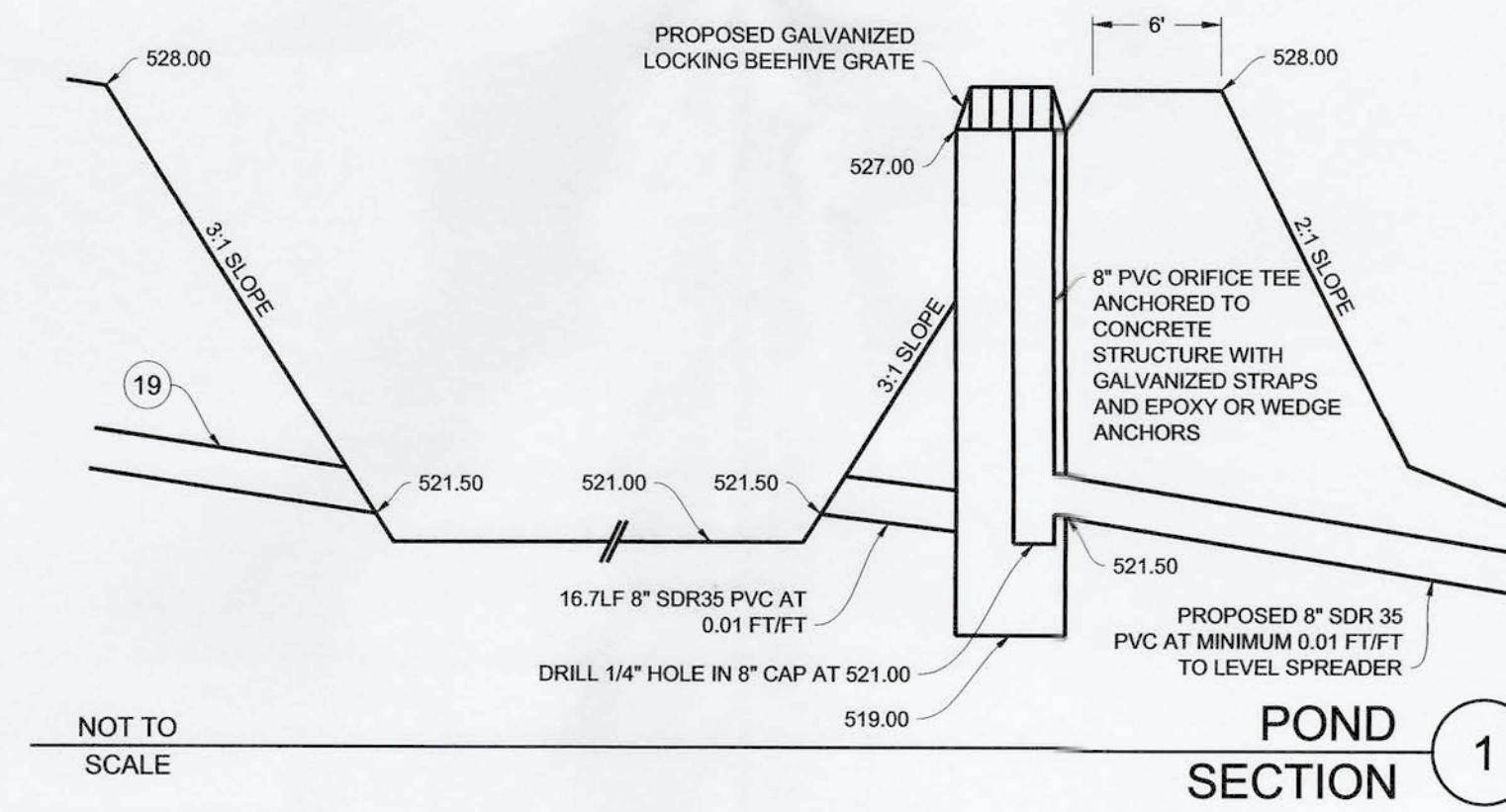


KEY NOTES

- | | | |
|---|---|--|
| <ol style="list-style-type: none"> 1. PROPOSED ROOF DRAIN CLEANOUT
RIM: 531.76
IE (W)(6"): 529.76 2. PROPOSED 270 LF 6" SDR35 PVC STORM DRAIN AT 0.010 FT/FT 3. PROPOSED TYPE 1 CATCH BASIN
RIM: 532.24
IE (W)(6"): 527.06
IE (E)(6"): 527.06
IE (S)(6"): 527.06
IE (NE)(6"): 527.06 4. PROPOSED ROOF DRAIN CLEANOUT
RIM: 530.41
IE (E)(6"): 528.41 5. PROPOSED 45.4 LF 6" SDR35 PVC STORM DRAIN AT 0.030 FT/FT 6. PROPOSED 122 LF 8" SDR35 PVC STORM DRAIN AT 0.029 FT/FT 7. PROPOSED ROOF DRAIN CLEANOUT
RIM: 533.94
IE (W)(6"): 530.60
IE (E)(6"): 530.60
IE (N)(6"): 530.60 8. PROPOSED ROOF DRAIN CLEANOUT
RIM: 533.86
IE (E)(6"): 531.66 9. PROPOSED 50.6 LF 6" SDR35 PVC STORM DRAIN AT 0.021 FT/FT | <ol style="list-style-type: none"> 10. PROPOSED ROOF DRAIN CLEANOUT
RIM: 534.96
IE (W)(6"): 532.78 11. PROPOSED 218.4 LF 6" SDR35 PVC STORM DRAIN AT 0.010 FT/FT 12. PROPOSED ROOF DRAIN CLEANOUT
RIM: 529.87
IE (NE)(6"): 527.87 13. PROPOSED 127.2 LF 6" SDR35 PVC STORM DRAIN AT 0.010 FT/FT 14. PROPOSED ROOF DRAIN CLEANOUT
RIM: 531.05
IE (SW)(6"): 526.60
IE (NW)(6"): 526.60 15. PROPOSED 28.9 LF 6" SDR35 PVC STORM DRAIN AT 0.236 FT/FT 16. PROPOSED TYPE 1 CATCH BASIN
RIM: 523.85
IE (SE)(6"): 519.98
IE (N)(6"): 519.98 17. PROPOSED 62.2 LF 6" SDR35 PVC STORM DRAIN AT 0.010 FT/FT 18. CONNECT TO EXISTING CATCH BASIN
IE: 519.36 19. PROPOSED 92 LF 8" SDR35 PVC STORM DRAIN AT 0.066 FT/FT. INSTALL 4" X 6" RIP RAP PAD AT OUTFALL 20. PROPOSED SEWER FORCE MAIN PER SHEET C9 (TYP) 21. ENSURE THAT A MINIMUM OF 6" OF CLEARANCE IS PROVIDED | <p>BETWEEN PROPOSED PIPES AT ALL CROSSINGS (TYP).</p> <ol style="list-style-type: none"> 22. PROPOSED 2" WIDE GRAVEL DISPERSION STRIP. MATERIAL AND DEPTH SHALL BE THE SAME AS THAT OF THE ROADWAY SHOULDERS DESCRIBED IN DETAIL 6 & 7/C11 (TYP) 23. PROPOSED WATER MAIN PER SHEET C10 (TYP) 24. PROPOSED UNDERGROUND POWER AND TELECOMMUNICATIONS LINES. ADJUST LOCATION AS NECESSARY TO ENSURE A MINIMUM OF 6" CLEARANCE BETWEEN OTHER CONDUIT/PIPE (TYP) 25. PROPOSED COMPOST-AMENDED VEGETATIVE FILTER STRIP (CAVFS) PER DETAIL 2/C11 (TYP) 26. PROPOSED 50 LF LEVEL SPREADER PER DETAIL 9/C11 27. PROPOSED 48" CIRCULAR CONCRETE FLOW CONTROL STRUCTURE WITH ORIFICE TEE AND 2" SUMP PER DETAIL 1, THIS SHEET. 28. PROPOSED RETENTION POND W/ 6" EXTERIOR BERM. APPLY DETAIL 1/C11 TO WETTED SURFACE. 29. PROPOSED 24 LF 18" CORRUGATED METAL CULVERT |
|---|---|--|

ROOF AND STORM DRAIN NOTES

1. ROOF DRAIN PIPE SHALL BE SDR 35 PVC AND SHALL BE AT A MINIMUM 2% GRADE TO DRAIN TO DISCHARGE LOCATION.
2. ALL DRAIN PIPE TRENCHING AND BACKFILL SHALL BE PER PIPE MANUFACTURER SPECIFICATIONS.
3. ALL PIPE SHALL BE CLEANED VIA FLUSHING PRIOR TO CONNECTION TO DISCHARGE LOCATION.
4. DRAIN FITTINGS SHALL BE SDR 35 PVC FITTINGS.
5. ROOF AND STORM DRAIN PIPE SHALL BE LAID STRAIGHT WITH NO VERTICAL SAGS OR BENDS IN PIPE. HORIZONTAL BENDS SHALL BE CONSTRUCTED WITH WATERTIGHT FITTINGS OR WITH DEFLECTION AT JOINTS PER MANUFACTURER SPECIFICATIONS.
6. 45° WYE CLEANOUTS SHALL BE INSTALLED UPSTREAM OF ALL BENDS AND SHALL BE PER DETAIL 8/C11.
7. CONNECT ALL DOWNSPOUTS TO ROOF DRAINS WITH SDR 35 PVC FITTINGS PER DETAIL 8/C11.
8. DO NOT CONNECT ROOF DRAIN PIPE TO FOOTING DRAIN PIPE.
9. STORM DRAIN PIPES SHALL BE A MINIMUM OF 6" DIAMETER. ROOF DRAIN PIPE SHALL BE 4".
10. PROPOSED CLEANOUTS SHALL BE INSTALLED EVERY 50' OF PIPE RUN AND SHALL BE PER DETAIL 8/C11.
11. PROPOSED CATCH BASINS SHALL BE PER DETAIL 3/C13.

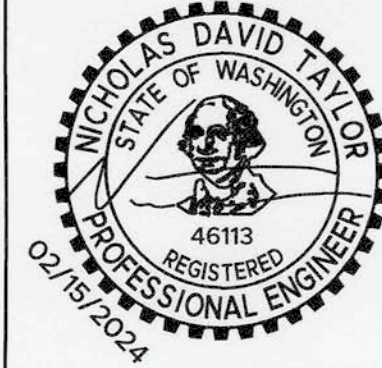


BIRCHFIELD
MOBILE HOME PARK 1
SE 1/4 SEC 23 T1N 15N R1W WM
0717042405
221 BIRCHFIELD PKWY
ONALASKA, WA 98570

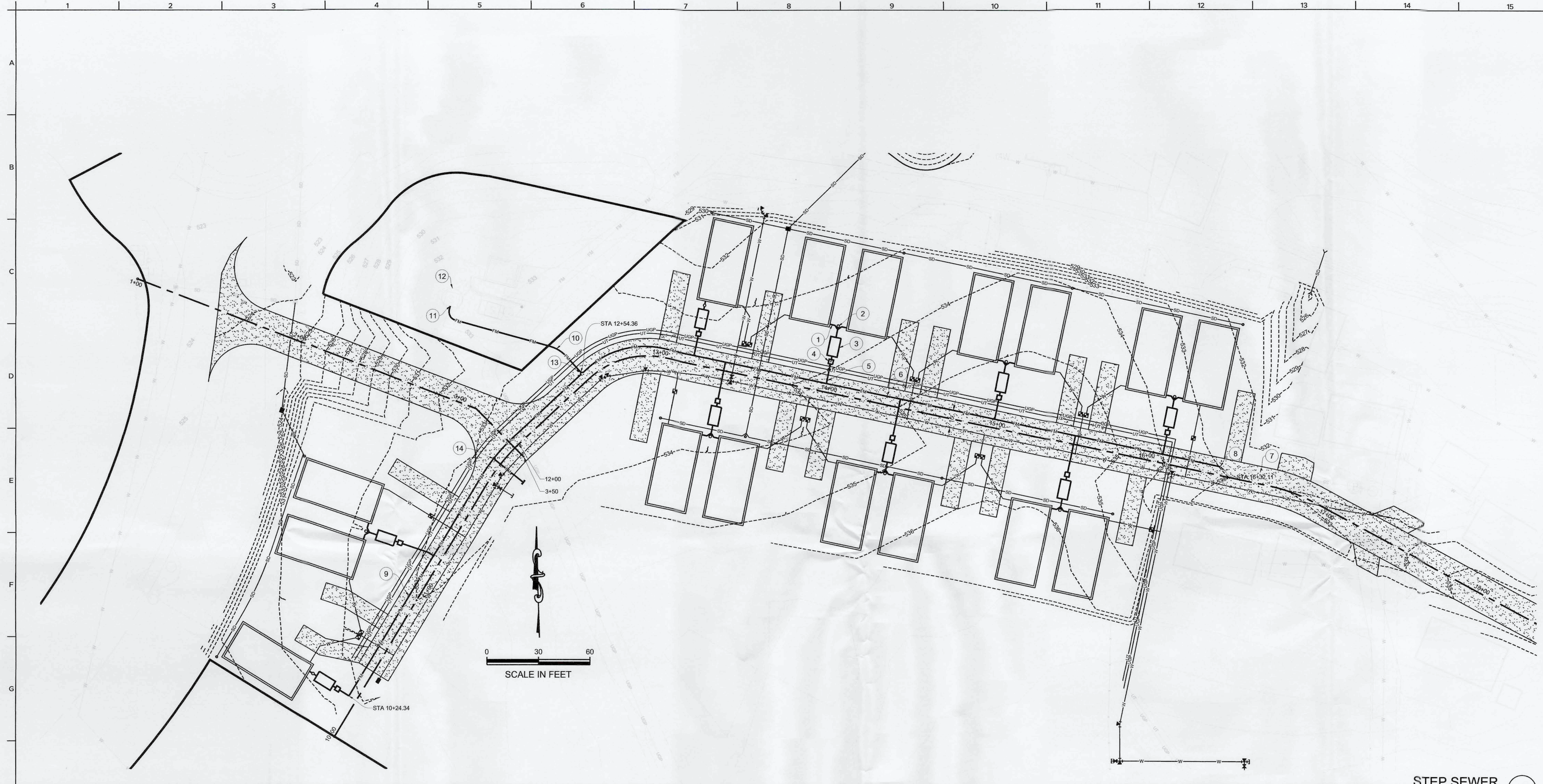
DRAINAGE

PROJ. NO:	VF01
REVIEWED BY:	NDT
DESIGNED BY:	NDT
DRAWN BY:	RCB
DATE:	02-15-2024

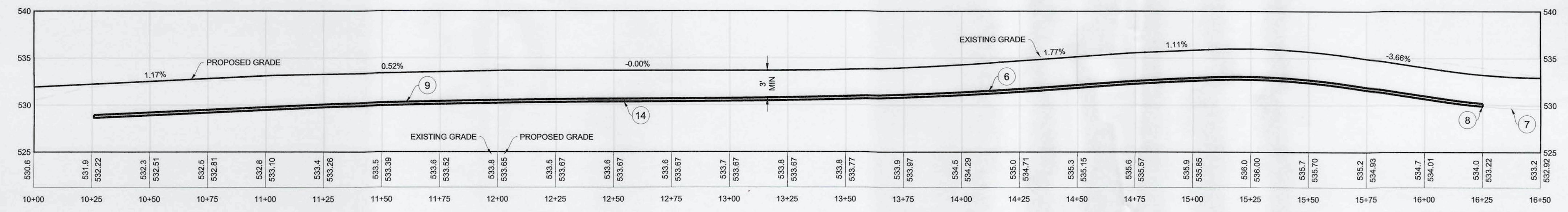
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STEP SEWER PLAN 1



STEP SEWER PROFILE 1
HORIZONTAL SCALE : 1" = 30'
VERTICAL SCALE : 1" = 7.5'

- # KEY NOTES**
1. PROPOSED 4" SDR35 PVC SEWER LINE AT 0.02 FT/FT (TYP)
 2. PROPOSED SANITARY SEWER CLEANOUT PER DETAIL 4/C13 (TYP)
 3. PROPOSED STEP TANK WITH PUMP PER DETAIL 1/C13 (TYP)
 4. PROPOSED 1.25" SWING CHECK VALVE UPSTREAM OF PROPOSED 1.25" BALL VALVE IN CONCRETE VALVE BOX WITH CAST IRON LID PER DETAIL 2/C13 (TYP)
 5. PROPOSED 1.25" CL200 PVC STEP SERVICE LINE PER DETAIL 2/C13
 6. PROPOSED 383 LF 3" CL200 PVC STEP MAIN
 7. EXISTING STEP LINE. SIZE UNKNOWN.
 8. CONNECT EXISTING STEP LINE TO PROPOSED STEP LINE.
 9. PROPOSED 383 LF 2" CL200 PVC STEP MAIN
 10. PROPOSED 91 LF 3" CL200 PVC STEP MAIN
 11. CONNECT TO EXISTING LIFT STATION
 12. EXISTING LIFT STATION
 13. PROPOSED (2) 2" 45° BENDS TO 3" WYE
 14. PROPOSED 3" TEE WITH 20 LF CAPPED 3" CL200 PVC STUB

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BIRCHFIELD
MOBILE HOME PARK 1
SE 1/4 SEC 23 T14N 13W R14G 1W W1/2
017104124053
221 BIRCHFIELD PKWY
ONALASKA, WA 98570

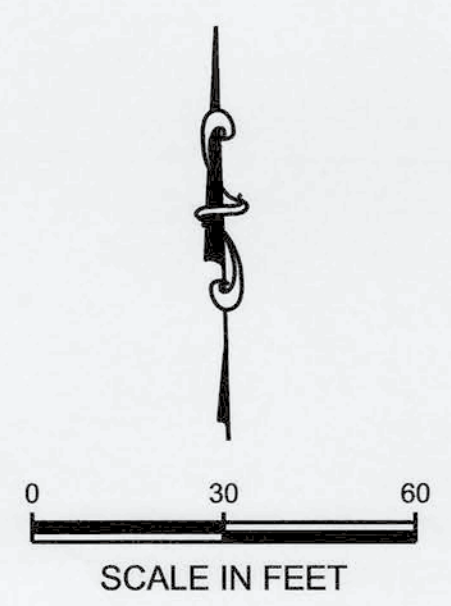
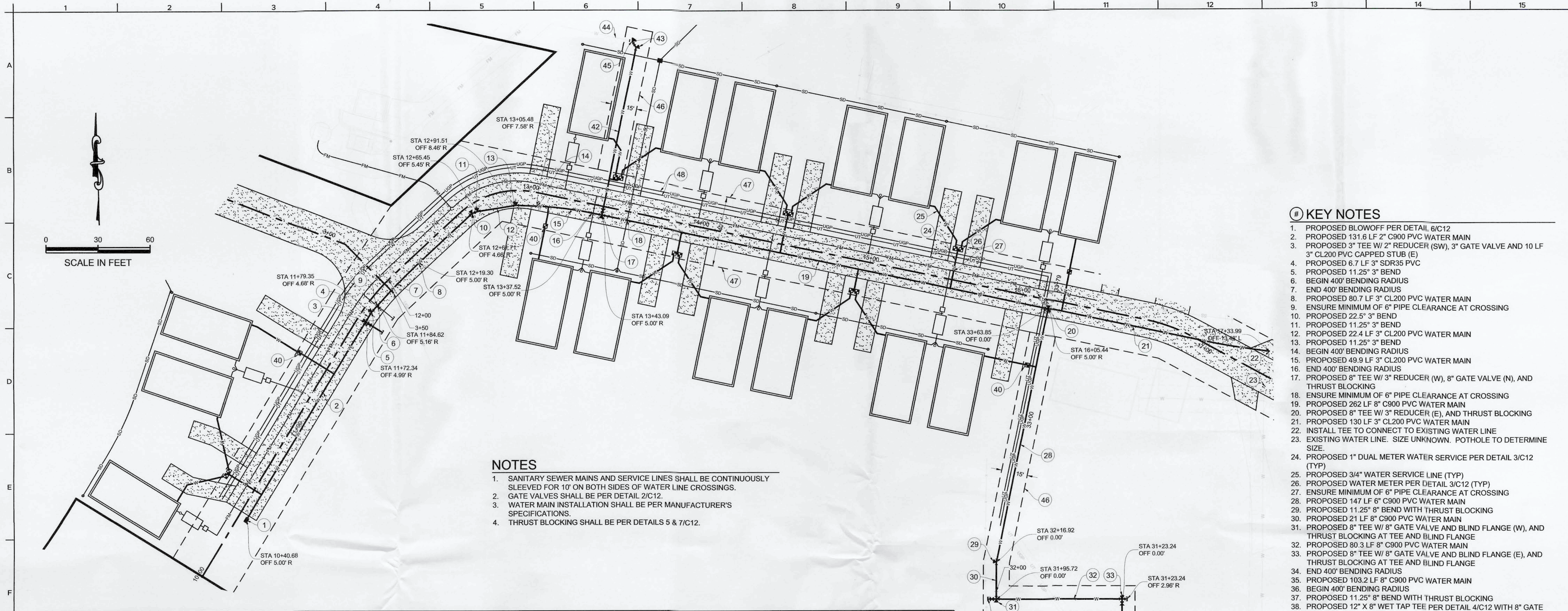
SANITARY SEWER

PROJ. NO:	VF01
REVIEWED BY:	NDT
DESIGNED BY:	NDT
DRAWN BY:	RCB
DATE:	02-15-2024

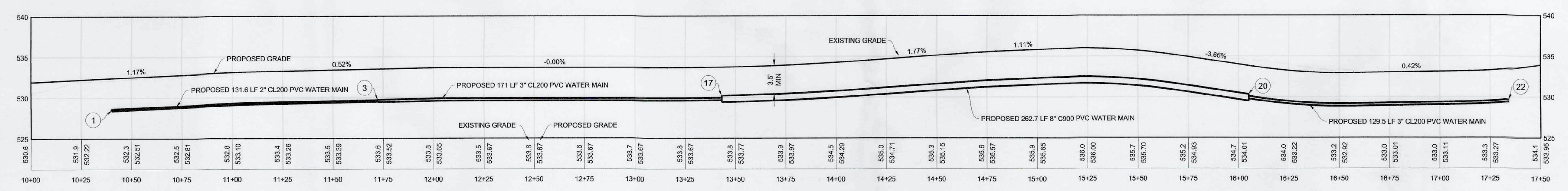
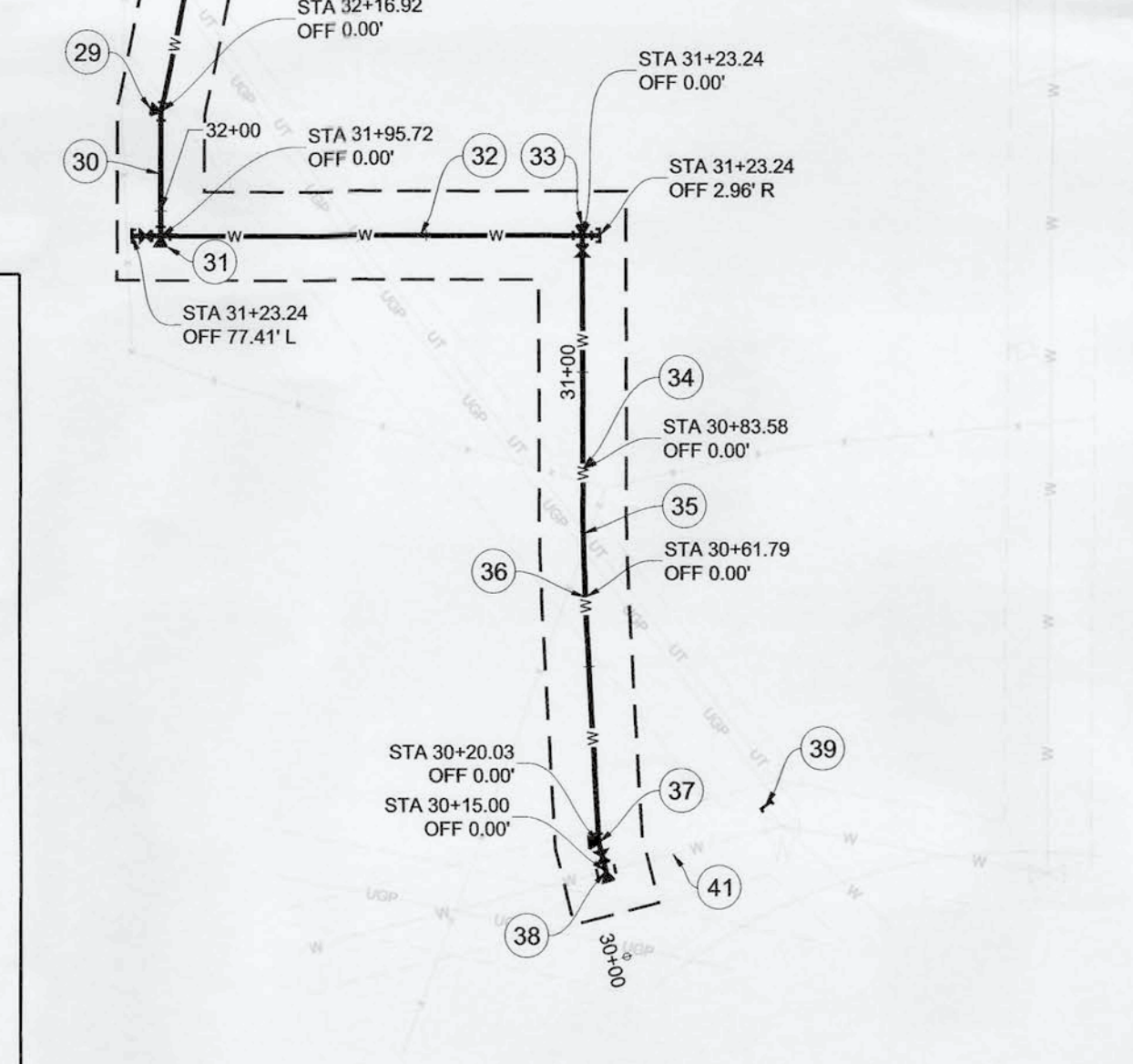
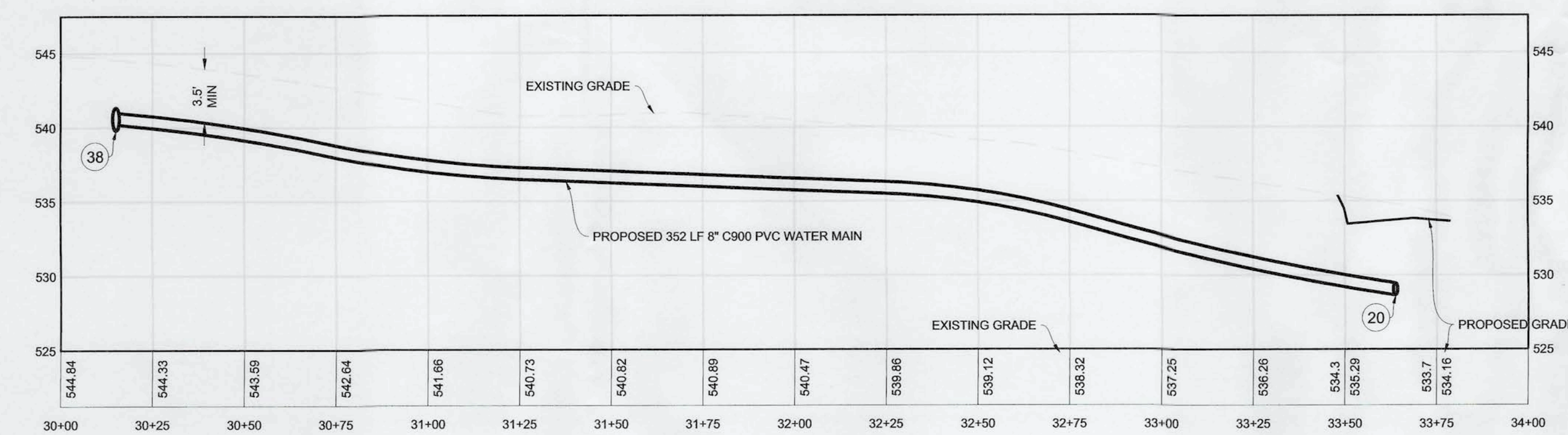
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- NOTES**
- SANITARY SEWER MAINS AND SERVICE LINES SHALL BE CONTINUOUSLY SLEEVED FOR 10' ON BOTH SIDES OF WATER LINE CROSSINGS.
 - GATE VALVES SHALL BE PER DETAIL 2/C12.
 - WATER MAIN INSTALLATION SHALL BE PER MANUFACTURER'S SPECIFICATIONS.
 - THRUST BLOCKING SHALL BE PER DETAILS 5 & 7/C12.



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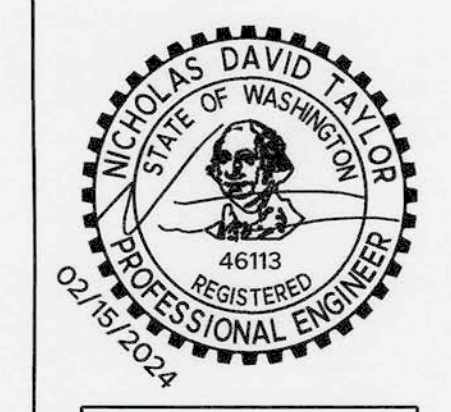
360-890-8955 | 299 N Market Blvd, Chehalis, WA 98532

BIRCHFIELD
MOBILE HOME PARK 1
SE 1/4 SEC 23 T1W 13N R1W 1W WM
017104124053
221 BIRCHFIELD PKWY
ONALASKA, WA 98570

WATER

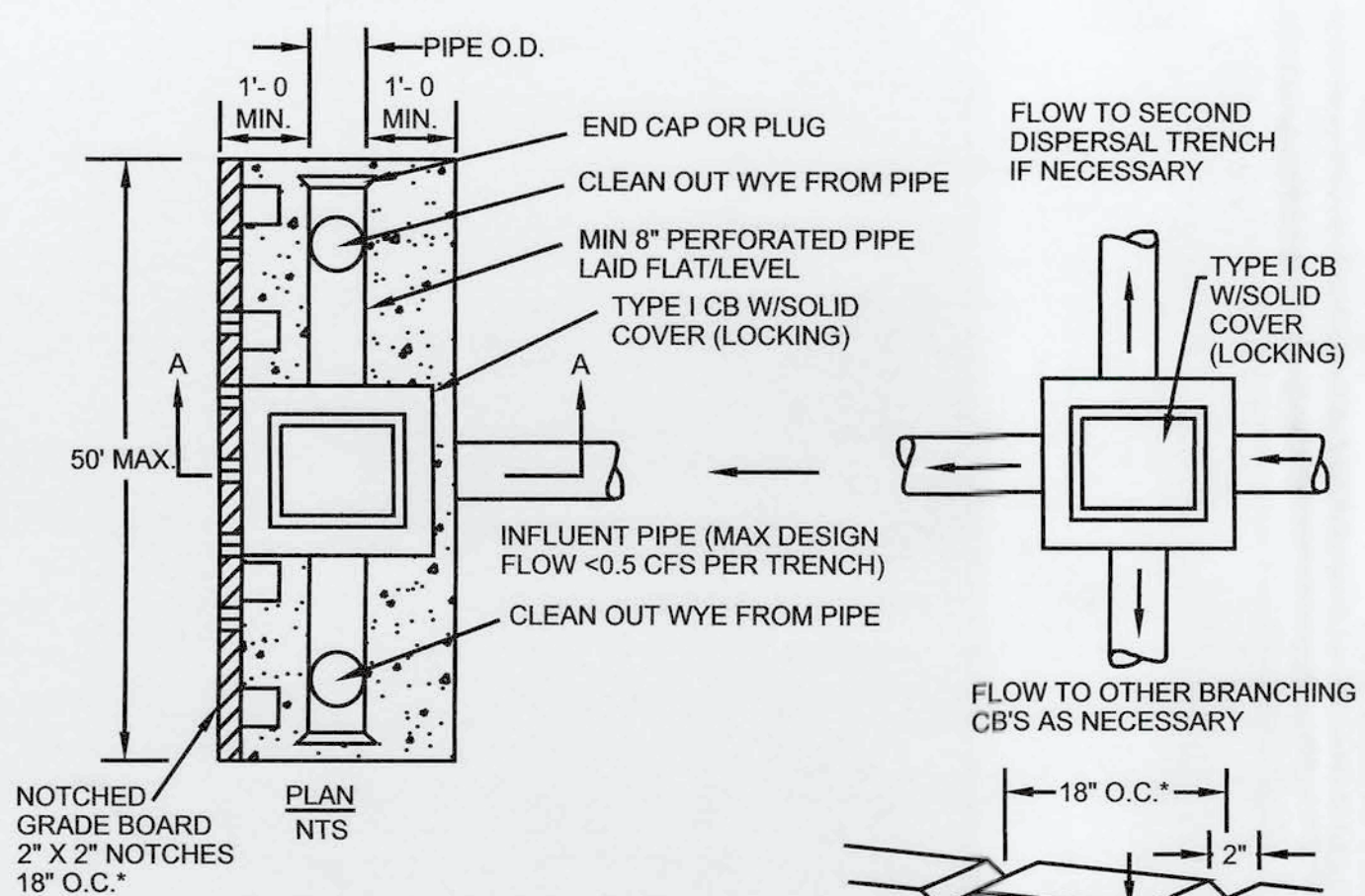
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DESIGNED BY:	NDT
DRAWN BY:	RCB
DATE:	02-15-2024

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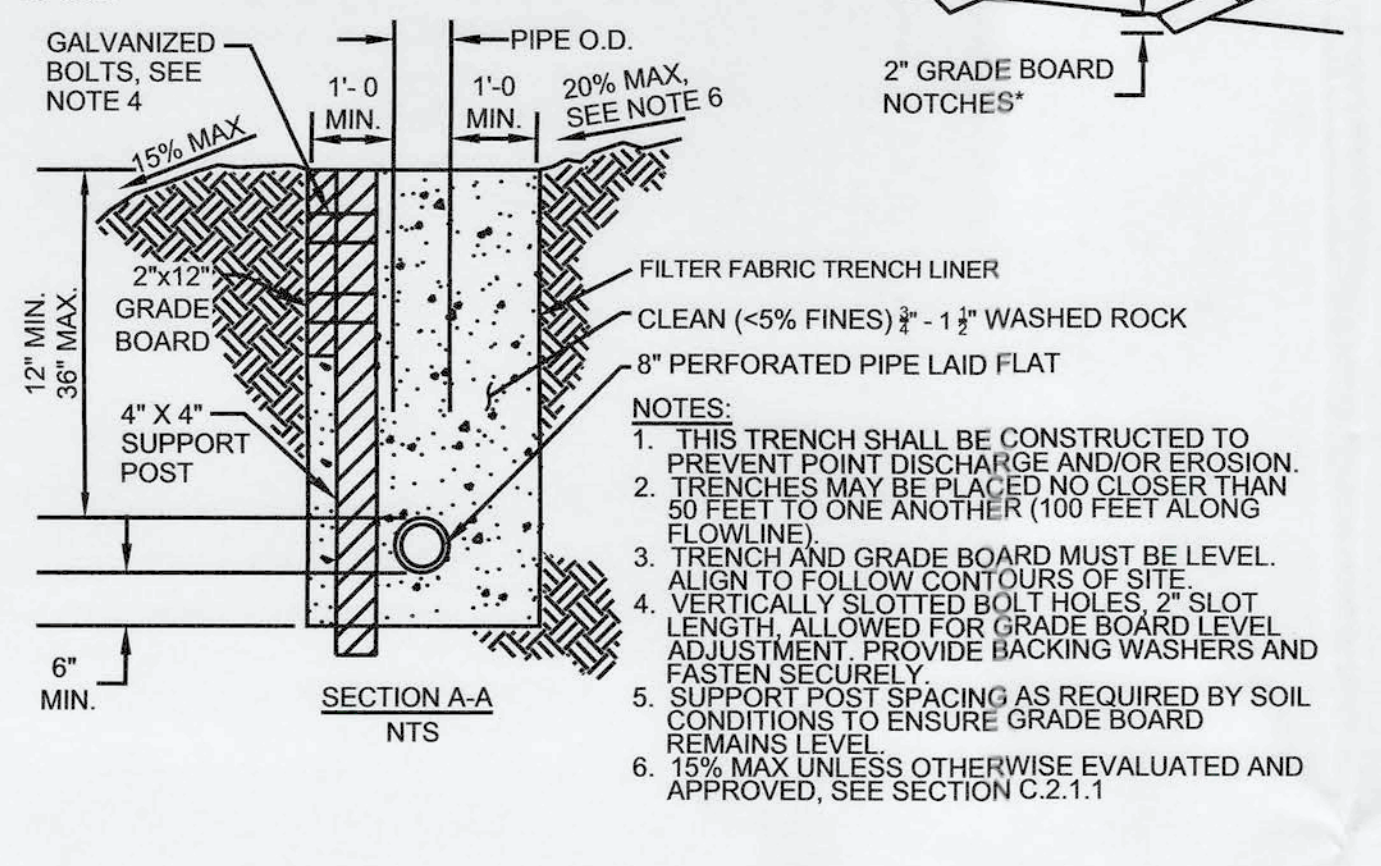


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10 of 14

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DISPERSION TRENCH DETAIL 9



ROOF DRAIN DETAIL 8

MAINTENANCE STANDARDS:

- ANY ACCUMULATED SEDIMENT ON OR AROUND THE FILTER FABRIC SHALL BE REMOVED PROMPTLY AND DISPOSED OF.
- SEDIMENT SHALL NOT BE REMOVED WITH WATER INSIDE THE BASIN.
- REGULAR MAINTENANCE IS REQUIRED. INSPECT WEEKLY ON ACTIVE SITES, MONTHLY ON INACTIVE SITES, & AFTER EACH STORM EVENT TO VERIFY PROTECTION IS STILL ADEQUATE. REPLACE AS NEEDED.
- ANY SEDIMENT IN THE CATCH BASIN INSERT SHALL BE REMOVED WHEN IT HAS FILLED 1/3 OF THE STORAGE CAPACITY OF THE FILTER DEVICE.
- THE GEOTEXTILE FABRIC FILTER MEDIA SHALL BE INSPECTED AFTER EACH STORM EVENT & CLEANED OR REPLACED WHEN 1/3 OF STORAGE CAPACITY IS REACHED, OR MONTHLY, UNDER NORMAL WEATHER CONDITIONS, WHICHEVER OCCURS FIRST.
- REMOVE CATCH BASIN INLET PROTECTION DEVICE UPON COMPLETION OF THE WORK.

NOTES:

- THIS DEVICE IS APPLICABLE TO WHERE PONING OF WATER ABOVE THE CATCH BASIN WILL NOT CAUSE TRAFFIC PROBLEMS AND WHERE OVERFLOW WILL NOT RESULT.
- THIS INSERT DEVICE SHALL HAVE A MINIMUM OF 0.5 C.F. OF STORAGE. IT SHALL ALSO PROVIDE FOR DE-WATERING STORED SEDIMENT, AN OVERFLOW, AND EASE OF MAINTENANCE.
- FOR ADDITIONAL TECHNICAL INFORMATION, REFER TO WSDOE BMP C220.

Lots Served	Private Roads				111	Over 220			
	1-2	3-4	5-9	11-28					
Under 22	Under 35	Under 80	Under 250	251-400	401-750	751-1000	1001-2000	2000	2000
Per Day	22	35	80	250	400	750	1000	2000	2000
Road Width	14'	14'	20'	20'	20'	20'	20'	22'	24'
Shoulder Width	none	2'	none	1'	2'	3'	4'	6'	8'
Design Speed	<20	<20	20	20-25	20-30	25-35	25-35	35-45	35-50
Minimum Easement Width	38'	43'	40'	40'	60'	60'	60'	60'	60'

GENERAL NOTES:

- Roads serving 16 or more lots, or proposed for County maintenance, shall be paved.
- Maximum road grades shall be 12%, a minimum landing area of 40 feet shall be provided. Maximum grade may be exceeded for short distances with approval from the County Engineer.
- All side slopes and drainage facilities must be contained within the easement or right-of-way.
- Roadway geometrics design shall be in accordance with LAG manual, WSDOT, AASHTO Manual Standards, and be designed by a professional Civil Engineer registered in Washington State.
- Surfacing shall be designed with a structural section that takes into account the load bearing capacity of the soils and the traffic carrying requirements of the road. Plans shall be accompanied by the soil and traffic analysis on which the design is based, or as approved by the County Engineer.
- Construction requirements shall follow section of the Standard Specifications: 2-06 Subgrade Preparation; 2-03 Roadway Excavation & Embankment for required compaction Method C; 4-04 Ballast & Crushed Surfacing; 5-04 Hot Mix Asphalt; or 5-02 Bituminous Surface Treatment. Compaction test reports are required for all surfacing materials and subgrade. Test reports shall be submitted to Lewis County Public Works for review. Copies of these requirements are available for review at the County Engineer's Office.
- A minimum of a 20' clear zone is required for 1-4 lots. Clear zone requirements for more than 5 lots will be incorporated as per WSDOT Design Manual. Guardrail may be required on embankments 8' or greater in height within the clear zone.
- A 14 foot minimum vertical clearance shall be maintained.
- Stormwater collection, detention, and treatment shall be in accordance with LCC 15.45.
- All ditches and swales shall be 1' minimum depth below subgrade - where required.
- All horizontal and vertical curves shall be designed to AASHTO guidelines.
- Deviation from these standards may be available by applying to the office of the County Engineer.

Lewis County RURAL ROAD SECTION 3-2
DEPARTMENT OF PUBLIC WORKS 10-18-06

INLET PROTECTION DETAIL 7

CAVFS DETAIL 2

NOT TO SCALE

POST CONSTRUCTION SOIL QUALITY AND DEPTH DETAIL 2

SILT FENCE DETAIL 4

NOT TO SCALE

SILT FENCE DETAIL 4

POST CONSTRUCTION SOIL QUALITY AND DEPTH DETAIL 1

Stabilized Construction Access

Revised June 2016

NOT TO SCALE

STABILIZED CONSTRUCTION ACCESS DETAIL 3

ROOF DRAIN DETAIL 8

NOT TO SCALE

ROOF DRAIN DETAIL 8

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BIRCHFIELD
MOBILE HOME PARK 1
SE 1/4 SEC 23 T1W 13N R1W 1W WM
10500 HWY
221 BIRCHFIELD PARKWAY
ONALASKA, WA 98570

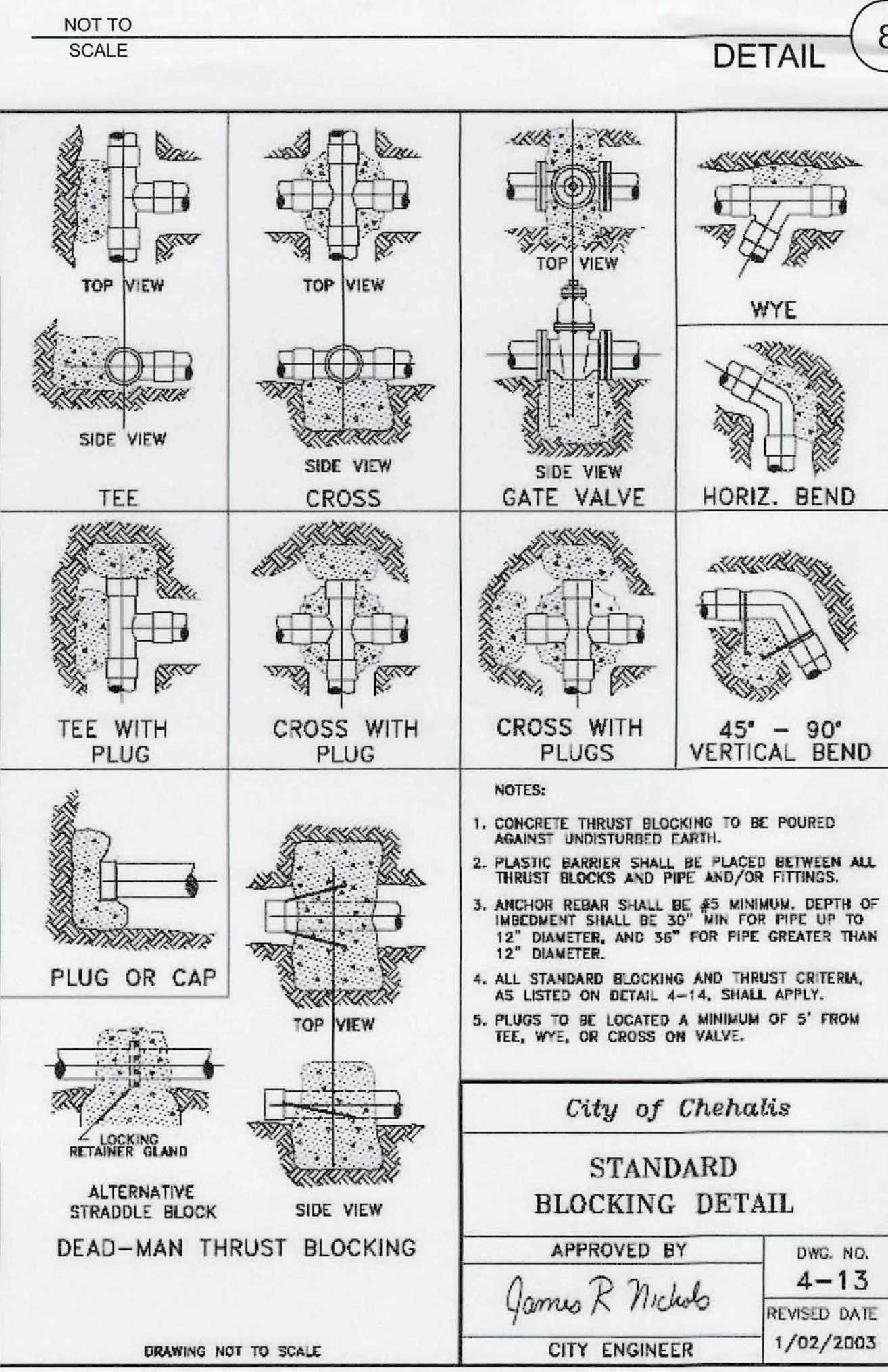
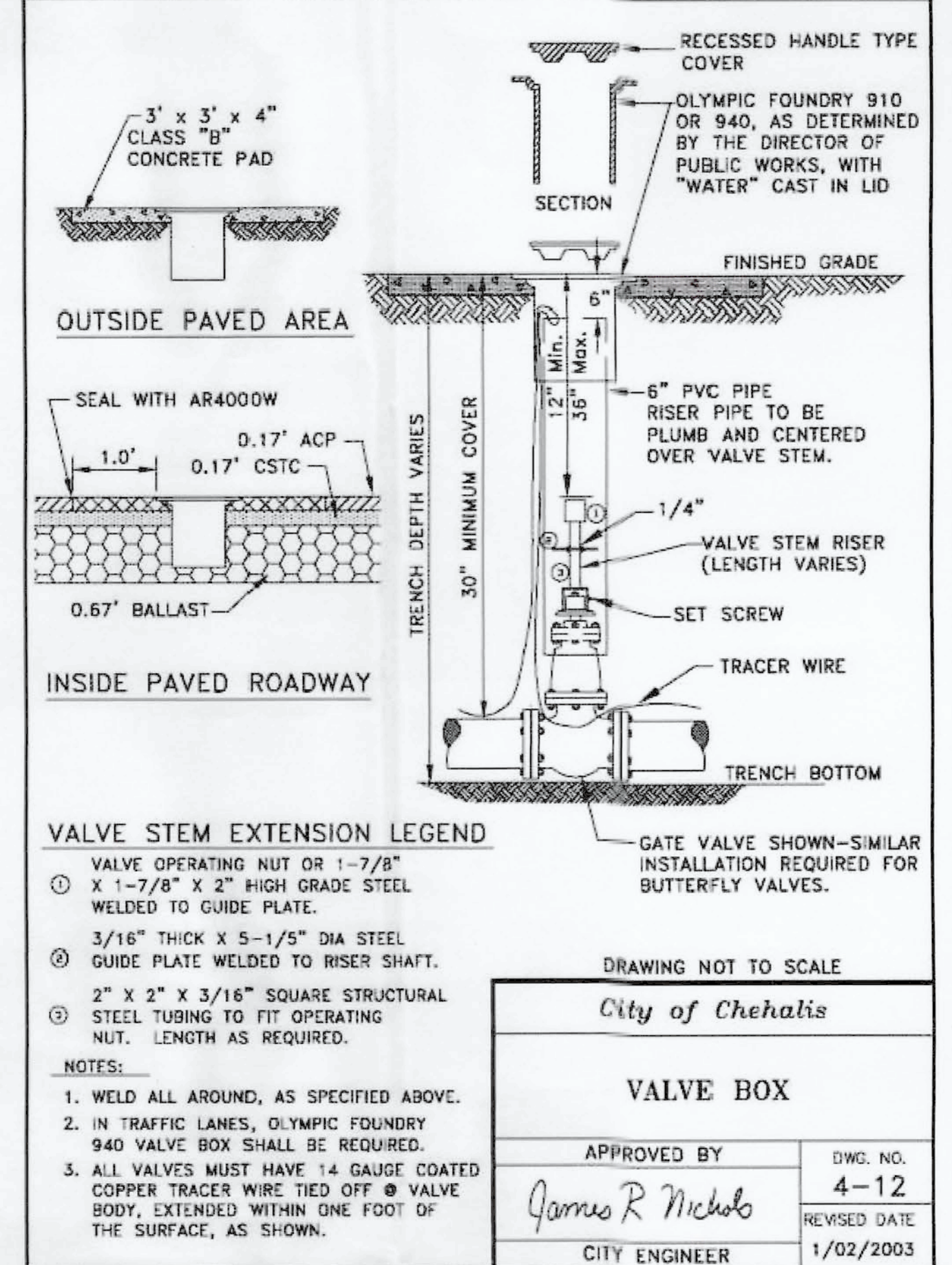
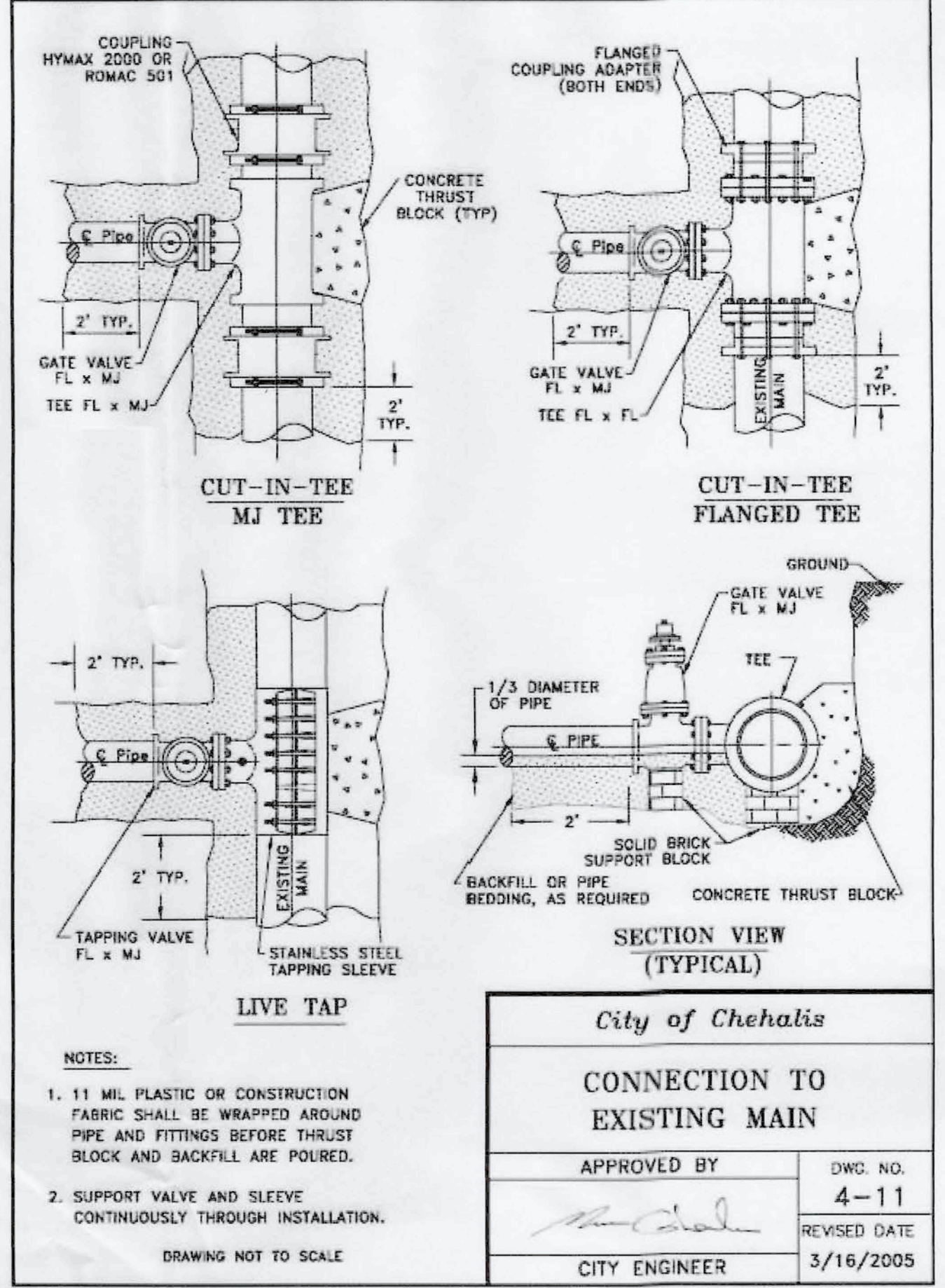
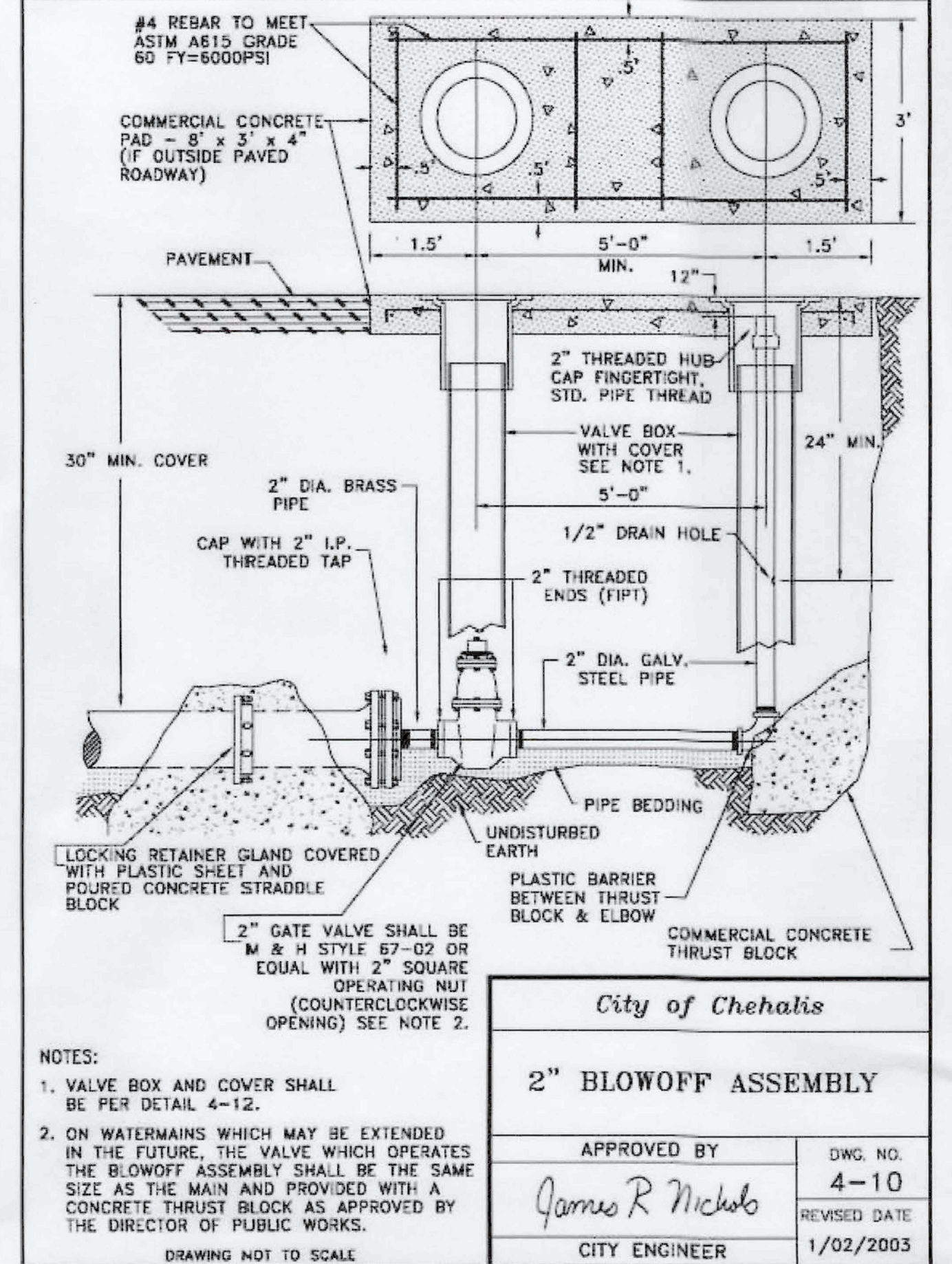
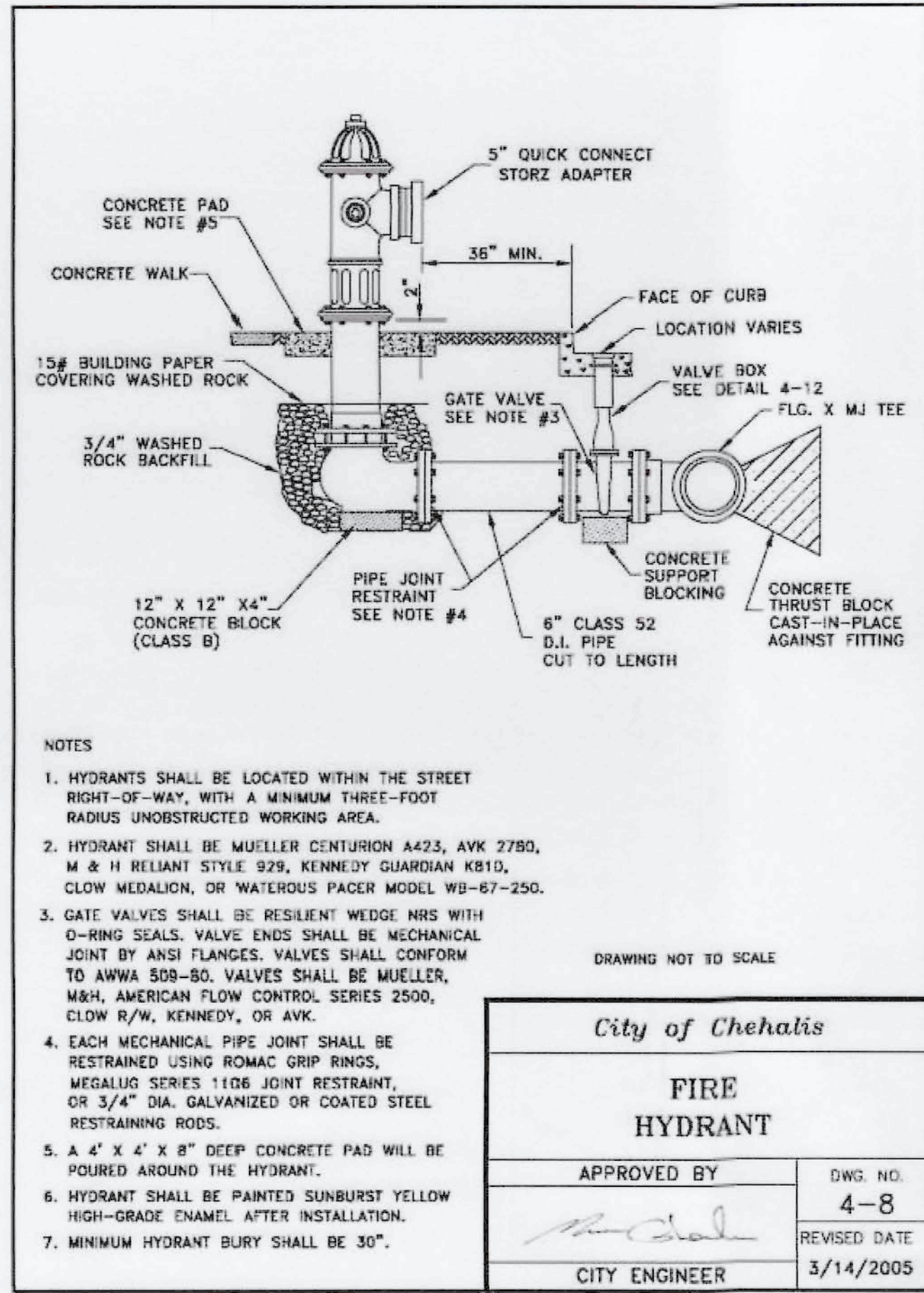
DETAILS 1

PROJ. NO.: VF01
REVIEWED BY: NDT
DESIGNED BY: NDT
DRAWN BY: RCB
DATE: 02-15-2024

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MICHAEL AS DAVID TAYLOR
STATE OF WASHINGTON
REGISTERED
PROFESSIONAL ENGINEER
02/15/2024

C11
11 of 14



THRUST LOADS

THRUST AT FITTINGS IN POUNDS AT 200 POUNDS PER SQUARE INCH OF WATER PRESSURE

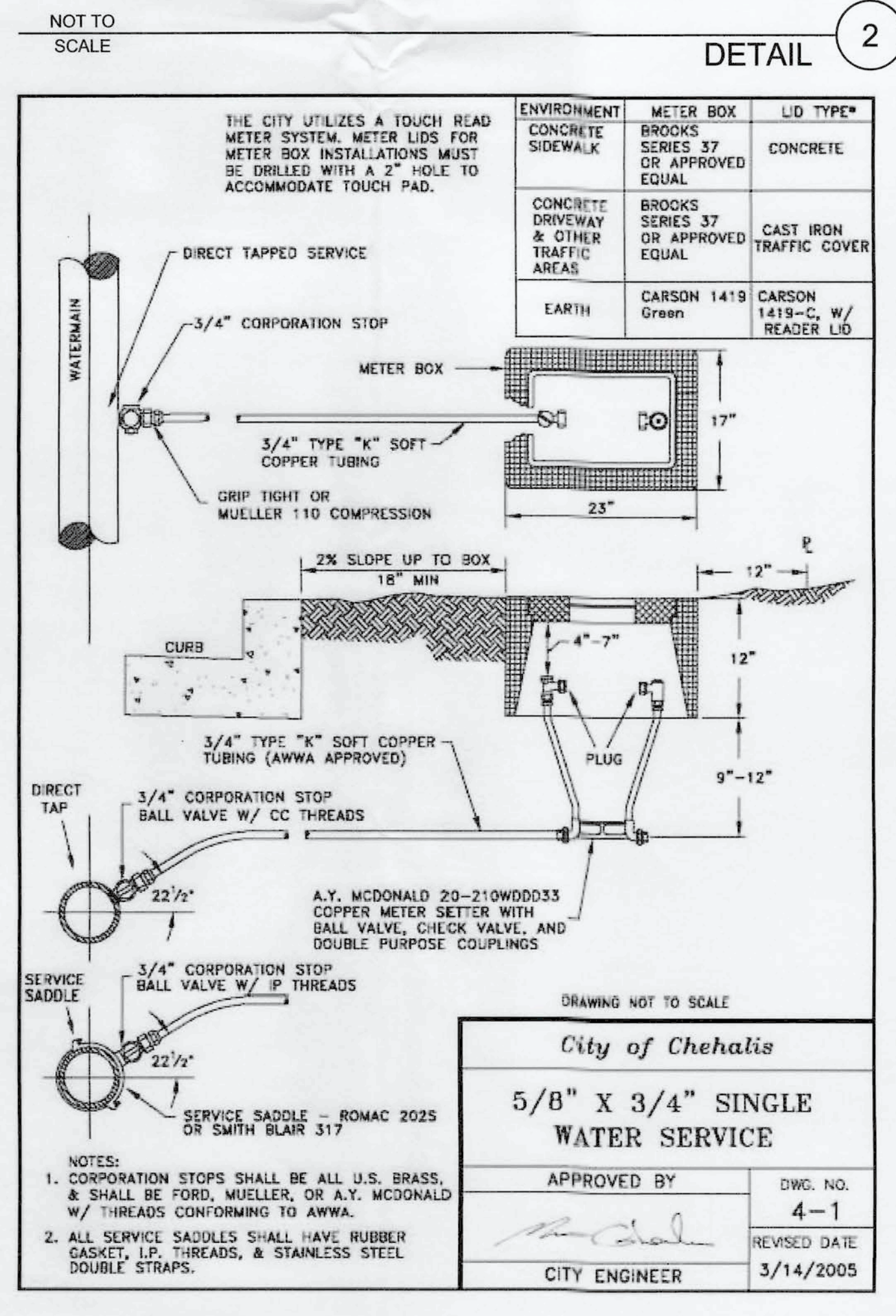
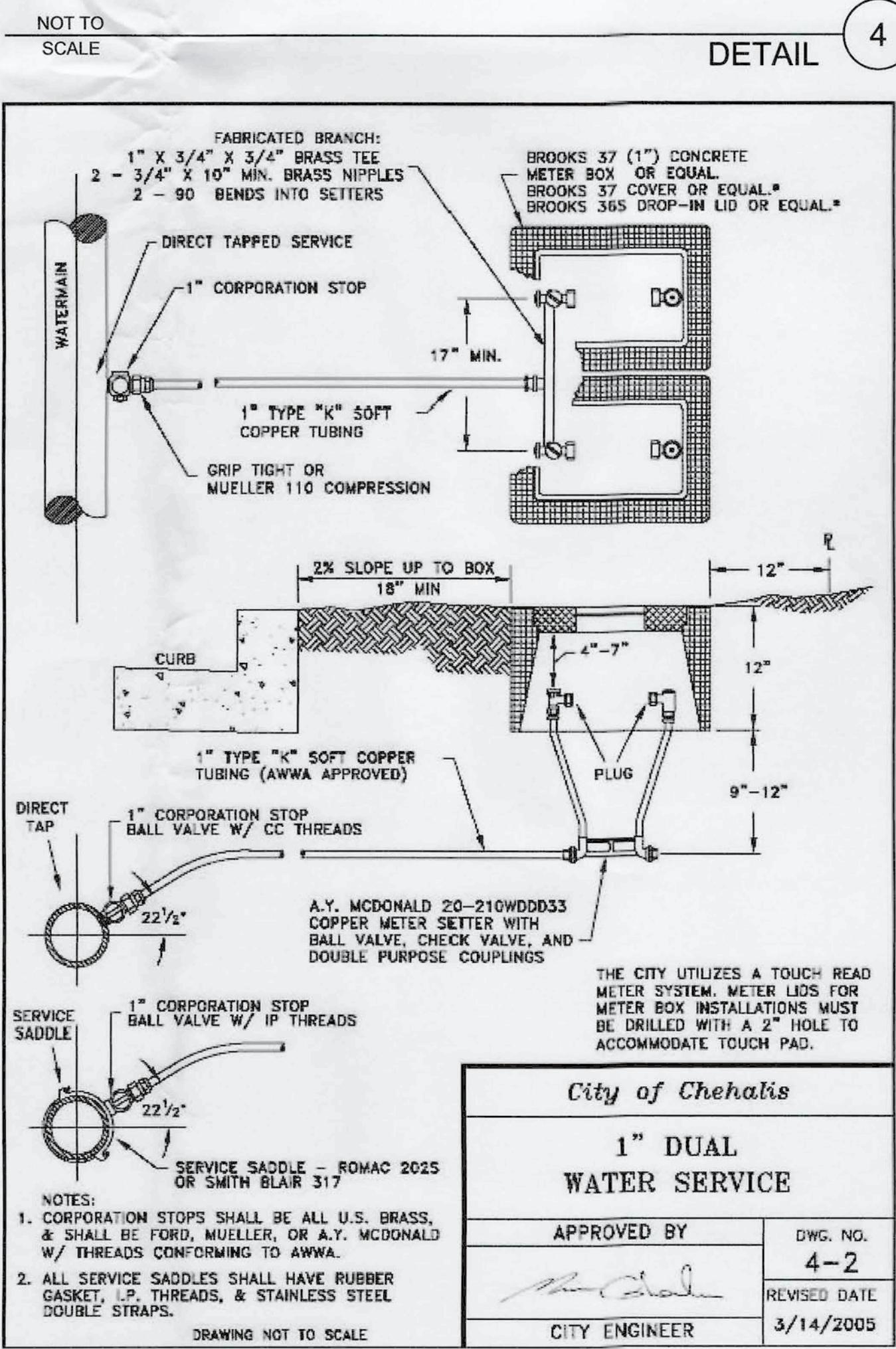
PIPE DIAMETER	90° BEND	45° BEND	22-1/2° BEND	11-1/4° BEND	DEAD END OR TEE
4"	3,600	2,000	1,000	500	2,600
6"	8,000	4,400	2,300	1,200	5,700
8"	14,300	7,700	4,000	2,000	10,100
10"	22,300	12,100	6,200	3,100	15,800
12"	32,000	17,400	8,900	4,500	22,700
14"	43,600	23,600	12,100	6,100	30,800
16"	57,000	30,800	15,700	7,900	40,300

SAFE SOIL BEARING LOADS

SOIL	POUNDS PER SQUARE FOOT
MUCK, PEAT	0
SOFT CLAY	1,000
SAND	2,000
SAND & GRAVEL	3,000
SAND & GRAVEL CEMENTED WITH CLAY	4,000
HARD SHALE	10,000

City of Chehalis
THRUST LOADS

APPROVED BY: [Signature] DWG. NO. 4-14
CITY ENGINEER REVISED DATE 1/02/2003



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BIRCHFIELD
MOBILE HOME PARK 1
SE 1/4 SEC 23 T14N 13N R14W 1W WM
0171104124053
221 BIRCHFIELD PKWY
ONALASKA, WA 98570

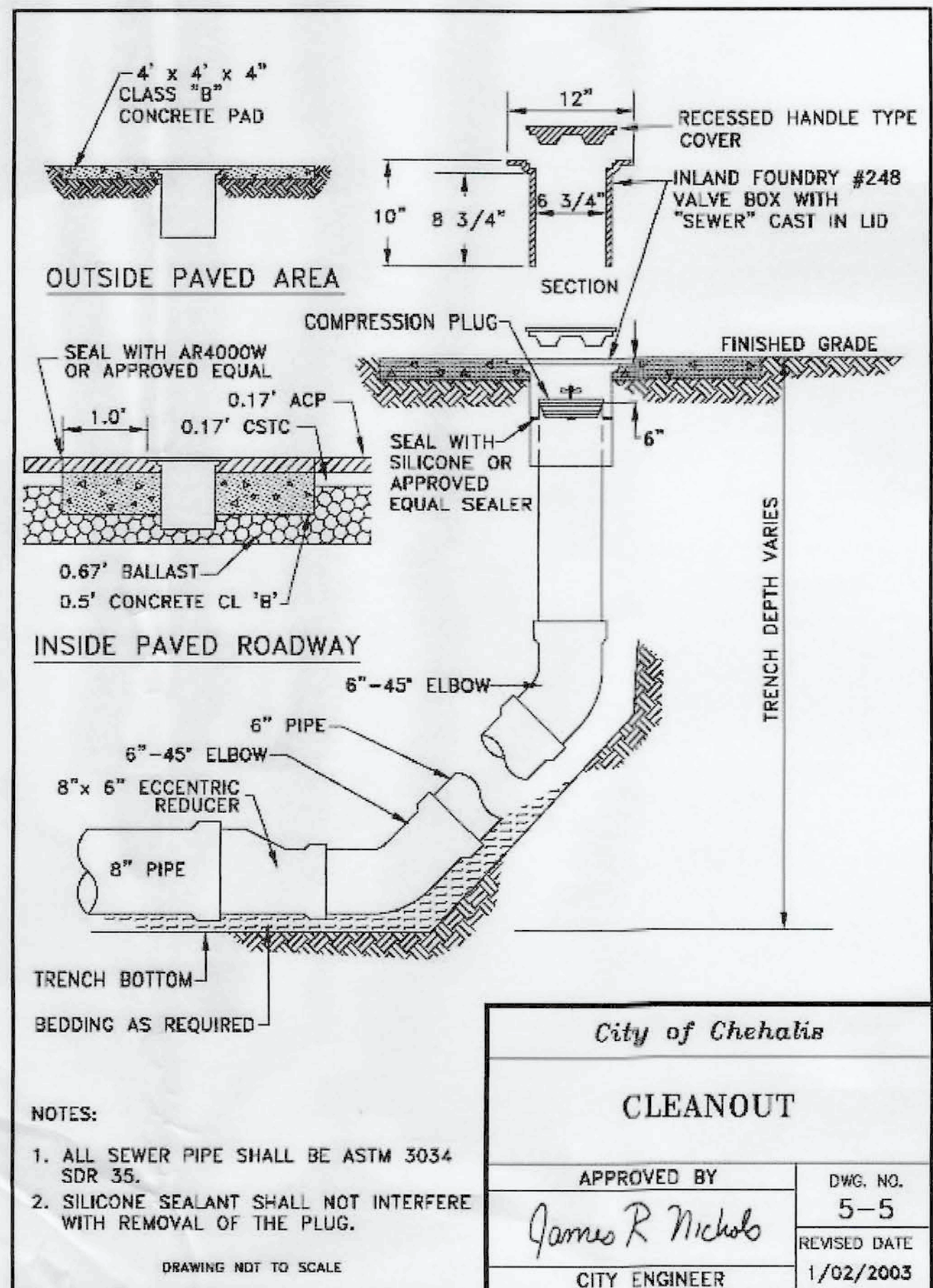
DETAILS 2

PROJ. NO.: VF01
REVIEWED BY: NDT
DESIGNED BY: NDT
DRAWN BY: RCB
DATE: 02-15-2024

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NICHOLAS DAVID TAYLOR
STATE OF WASHINGTON
REGISTERED
PROFESSIONAL ENGINEER
4613
02/15/2024

C12
12 of 14



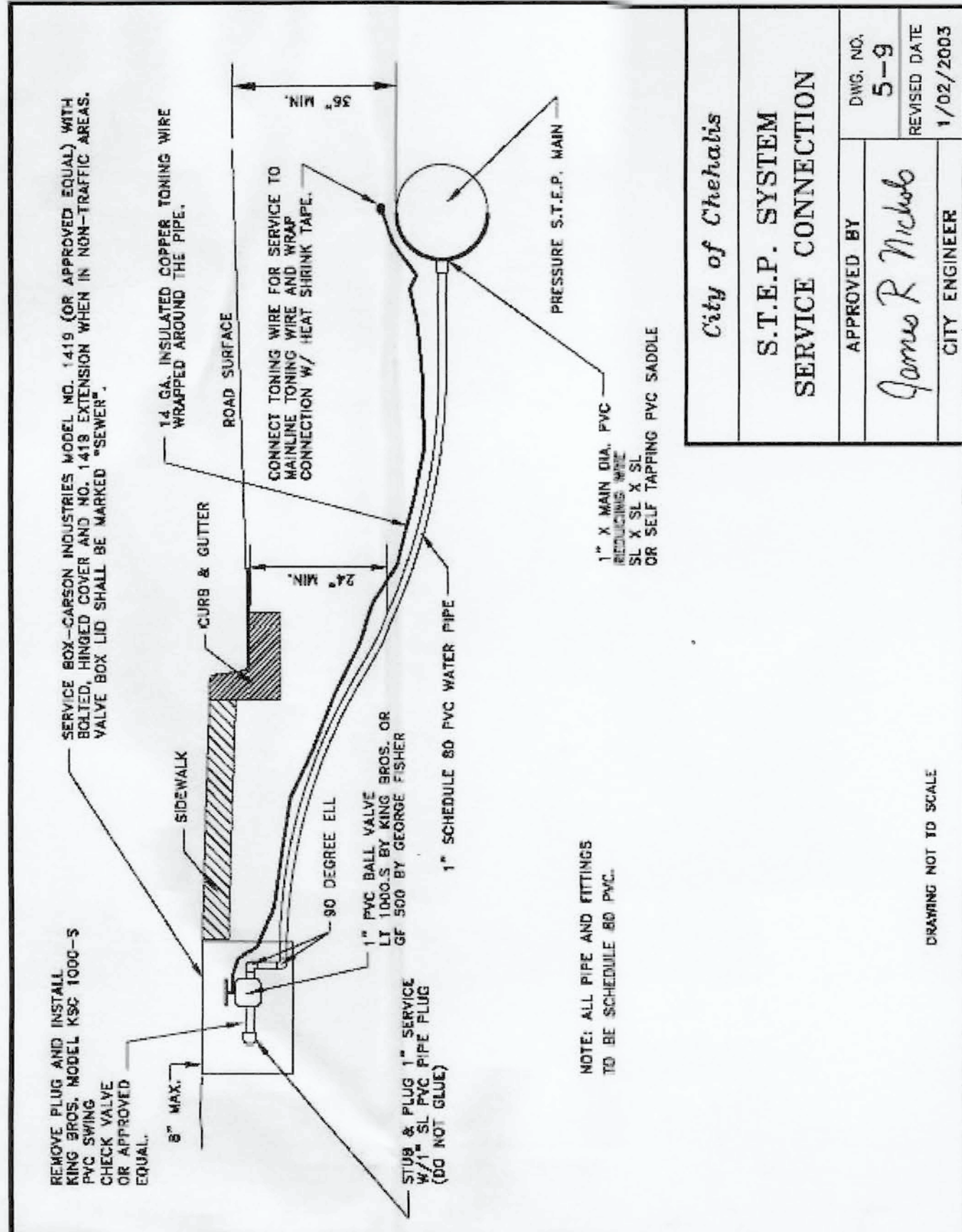
City of Chehalis

CLEANOUT

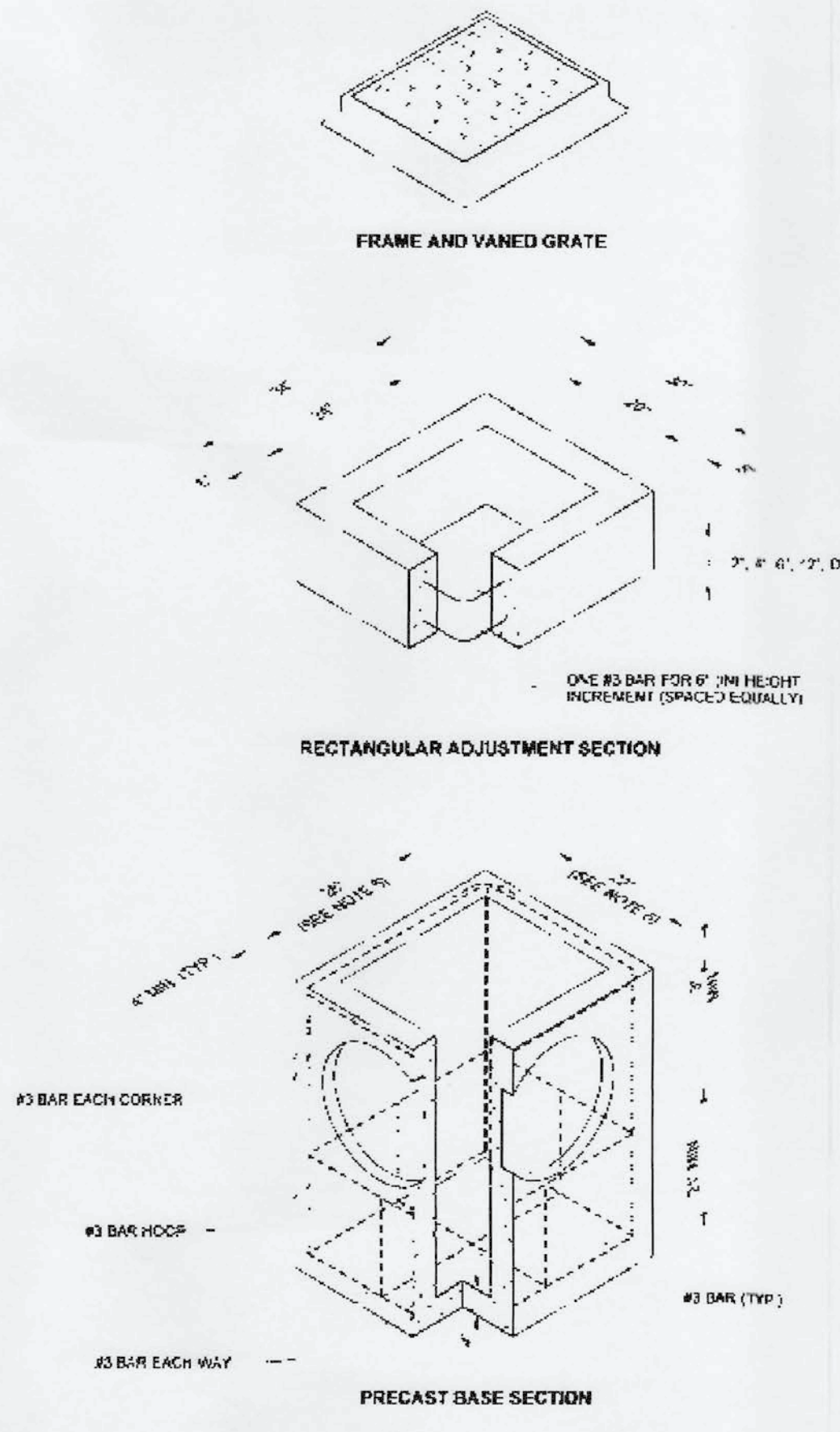
APPROVED BY <i>James R. Nichols</i>	DWG. NO. 5-5
CITY ENGINEER	REVISED DATE 1/02/2003

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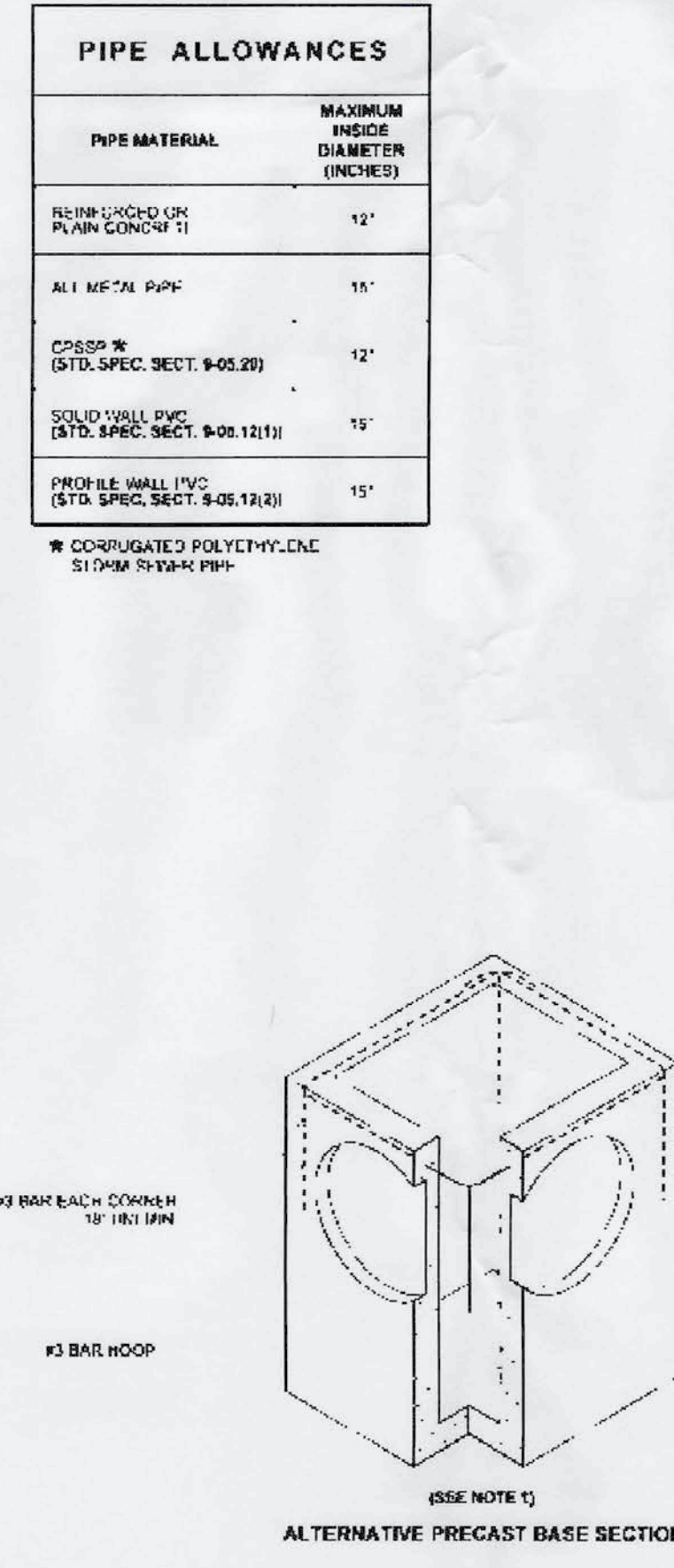
NOT TO SCALE
DETAIL 4



NOT TO SCALE
DETAIL 2



NOT TO SCALE

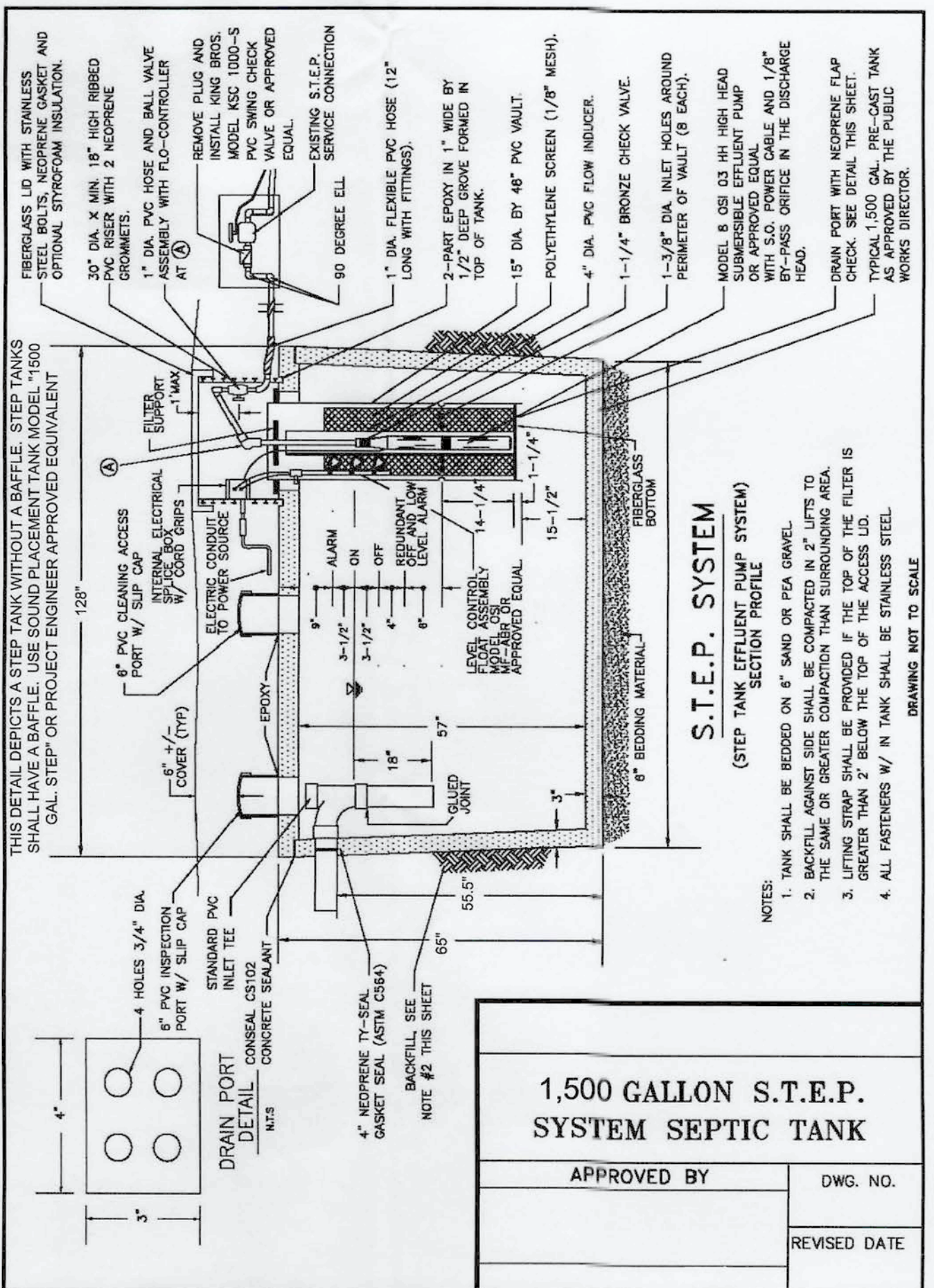


NOT TO SCALE

- NOTES**
- As acceptable alternatives to the rebar shown in the PRECAST BASE SECTION, fibers (placed according to the Standard Specifications) or wire mesh having a minimum area of 0.12 square inches per foot shall be used with the minimum required rebar shown in the ALTERNATIVE PRECAST BASE SECTION. Wire mesh shall not be placed in the knockouts.
 - The knockout diameter shall not be greater than 20" (n). Knockouts shall have a wall thickness of 2" (n) minimum to 2.5" (n) maximum. Provide a 1.5" (n) minimum gap between the knockout wall and the outside of the pipe. After the pipe is installed, fill the gap with mortar in accordance with Standard Specification Section 9-04.3.
 - The maximum depth from the finished grade to the lowest pipe invert shall be 5' (ft).
 - The frame and grate may be installed with the flange down or integrally cast into the adjustment section with flange up.
 - The Precast Base Section may have a rounded floor, and the walls may be sloped at a rate of 1 : 24 or steeper.
 - The opening shall be measured at the top of the Precast Base Section.
 - All pickup holes shall be grouted full after the base has been placed.

Roark, Steve
 PROFESSIONAL ENGINEER
 No. 46113
 STATE OF WASHINGTON

CATCH BASIN TYPE 1
STANDARD PLAN B-5.20-03
 SHEET 1 OF 1 SHEET
 APPROVED FOR PUBLICATION
 Roark, Steve
 Date: 2/22/24, 09:59 AM
 3160 20th Avenue S.E.
 Tukwila, WA 98148



NOT TO SCALE
DETAIL 1

1,500 GALLON S.T.E.P. SYSTEM SEPTIC TANK
 APPROVED BY
 DWG. NO.
 REVISED DATE

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BIRCHFIELD
MOBILE HOME PARK 1
 SE 1/4 SEC 23 T4W 13N R1G 1W WM
 07170472003
 201 PULASKI AVE
 OMAHA, NE 68104

DETAILS 3

PROJ. NO.:	VF01
REVIEWED BY:	NDT
DESIGNED BY:	NDT
DRAWN BY:	RCB
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NICHOLAS DAVID TAYLOR
 PROFESSIONAL ENGINEER
 No. 46113
 STATE OF WASHINGTON

C13

13 of 14

STORM SEWER NOTES

1. ALL STORM MAINS AND RETENTION/DETENTION AREAS WILL BE STAKED FOR GRADE AND ALIGNMENT BY AN ENGINEERING OR SURVEYING FIRM CAPABLE OF PERFORMING SUCH WORK.
2. STORM DRAINPIPE WILL MEET THE FOLLOWING REQUIREMENTS:
PVC PIPE CONFORMING TO ASTM D3034 SDR 35 OR ASTM F794 OR ASTM F679 TYPE 1 WITH JOINTS AND GASKETS CONFORMING TO ASTM D3212 AND ASTM F477, OR HIGH-DENSITY POLYETHYLENE SMOOTH INTERIOR PIPE CONFORMING TO AASHTO M 252 TYPES OR AASHTO M 294 TYPE S, WITH A GASKETED BELL AND SPIGOT JOINTS, OR ALUMINIZED STEEL HELICAL OR SPIRAL RIB PIPE IN DIAMETERS OF 30 INCHES OR GREATER, WITH A MANNING'S VALUE OF 0.020 OR LESS.
3. ALL STORM LINES AND CATCHBASINS WILL BE HIGH-VELOCITY CLEANED AND PRESSURE TESTED IN ACCORDANCE WITH DIVISION 7 OF THE STANDARD SPECIFICATIONS PRIOR TO PAVING. HYDRANT FLUSHING OF THE LINES IS NOT AN ACCEPTABLE CLEANING METHOD. TESTING OF THE STORM MAIN WILL INCLUDE TELEVISION INSPECTION AT THE CONTRACTOR'S EXPENSE.
4. PRIOR TO BACKFILL, ALL MAINS AND APPURTENANCES WILL BE INSPECTED AND APPROVED BY A COUNTY INSPECTOR. APPROVAL DOES CONSTITUTE FINAL ACCEPTANCE OF THE STORM SEWER LINE. THE CONTRACTOR WILL RETAIN RESPONSIBILITY OF REPAIRING ALL DEFICIENCIES AND FAILURES REVEALED DURING REQUIRED TESTING FOR ACCEPTANCE AND THROUGHOUT THE DURATION OF THE WARRANTY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE COUNTY IN ADVANCE OF ALL REQUIRED INSPECTIONS. ANY MAIN OR APPURTENANCE BACKFILLED PRIOR TO INSPECTION WILL BE REEXCAVATED FOR INSPECTION AT NO COST TO THE COUNTY.
5. NO STORMWATER SHALL BE CONVEYED TO THE PROPOSED STORMWATER POND UNTIL THE SITE IS FULL STABILIZED.

EROSION CONTROL NOTES

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLETE ALL WORK AND TO DISPOSE OF ALL DEMOLITION DEBRIS IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS. PRIOR TO ANY WORK CONTRACTOR SHALL COMPLETE ALL TESTING FOR HAZARDOUS MATERIALS AND SHALL ABATE ALL HAZARDOUS MATERIALS IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS.
2. CONTRACTOR SHALL OBTAIN AND FULFILL THE REQUIREMENTS OF ANY PERMITS REQUIRED FOR ANY PROPOSED DEMOLITION ACTIVITY.
3. CONTRACTOR SHALL COORDINATE WITH AND RECEIVE APPROVAL FROM ANY PUBLIC OR PRIVATE UTILITIES AS REQUIRED FOR ABANDONMENT OF UTILITY SERVICES. CONTRACTOR SHALL APPLY FOR AND COORDINATE ANY WORK THAT MUST BE COMPLETED BY THE UTILITY PURVEYOR. CONTRACTOR SHALL ENSURE THAT ALL UTILITIES TO BE MODIFIED OR REMOVED ARE SHUT OFF PRIOR TO DEMOLITION OR CONSTRUCTION ACTIVITY.
4. PRIOR TO ANY DEMOLITION OR REMOVAL/MODIFICATION OF EXISTING UNDERGROUND UTILITY SERVICES, CONTRACTOR SHALL PERFORM BOTH A PRIVATE AND PUBLIC UTILITY LOCATE TO IDENTIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES.
5. CONTRACTOR IS RESPONSIBLE FOR PROTECTION AND PRESERVATION OF ANY EXISTING FEATURES TO REMAIN.
6. CONTRACTOR IS RESPONSIBLE FOR DEMOLITION AND DISPOSAL OF ALL EXISTING FEATURES THAT CONFLICT WITH PROPOSED FEATURES.
7. APPROVAL OF THIS SWPPP DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G., SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.)
8. THE IMPLEMENTATION OF THIS SWPPP AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE APPLICANT/CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED AND VEGETATION/LANDSCAPING IS ESTABLISHED.
9. DURING THE CONSTRUCTION PERIOD, NO UNAUTHORIZED DISTURBANCE BEYOND THE PROPERTY BOUNDARY SHALL BE PERMITTED.
10. THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES, AND IN SUCH A MANNER AS TO INSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DO NOT ENTER THE DRAINAGE SYSTEM, ROADWAYS, OR VIOLATE APPLICABLE WATER STANDARDS.
11. THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND TO ENSURE THAT SEDIMENT AND SEDIMENT-LADEN WATER DO NOT LEAVE THE SITE.
12. THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING.
13. THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN THE 48 HOURS FOLLOWING A MAJOR STORM EVENT.
14. AT NO TIME SHALL MORE THAN 1 FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A TRAPPED CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT LADEN WATER INTO THE DOWNSTREAM SYSTEM.
15. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
16. DURING THE WET SEASON, NOVEMBER THROUGH MARCH, ALL DISTURBED SOILS WILL BE STABILIZED WITHIN 48 HOURS AFTER LAND DISTURBANCE ACTIVITIES HAVE CEASED. EROSION CONTROL MEASURES WILL INCLUDE, BUT ARE NOT LIMITED TO, INSTALLATION OF STRAW MATTING, JUTE MATTING, STRAW MULCH AND/OR WOOD CHIPS, AND COVERING THE AFFECTED AREA AND SPOIL PILES WITH PLASTIC SHEETING.
17. THE CONTRACTOR WILL CHECK ALL SEEDED OR SODDED AREAS REGULARLY TO ENSURE THAT THE VEGETATIVE COVER IS BEING ADEQUATELY ESTABLISHED. AREAS WILL BE REPAIRED, RESEEDED, AND FERTILIZED AS REQUIRED.
18. TRACKING OF SOIL OFF SITE WILL NOT BE ALLOWED. IF ANY SOIL IS TRACKED BEYOND THE LIMITS OF THE SITE, IT WILL BE REMOVED BEFORE THE END OF THAT WORKING DAY. TO PREVENT ADDITIONAL TRACKING, VEHICLE TIRES MUST BE SWEEPED OR WASHED PRIOR TO LEAVING THE PROJECT SITE.
19. ALL DISTURBED AREAS WILL BE SEEDED OR SODDED UPON COMPLETION OF WORK. THE CONTRACTOR WILL BE RESPONSIBLE TO ENSURE THAT COMPLETE COVERAGE OF THE DISTURBED AREAS IS PROVIDED AND THAT GROWTH OF VEGETATION IS ESTABLISHED. SEED AND SOD APPLICATIONS WILL BE CONDUCTED IN ACCORDANCE WITH THE TIMELINES NOTED IN THE MOST RECENT EDITION OF THE WSDOT STANDARD SPECIFICATIONS.
20. ALL EROSION CONTROL WILL REMAIN IN PLACE UNTIL SUCH TIME AS THE SITE IS ADEQUATELY STABILIZED. PRIOR TO REMOVAL OF EROSION CONTROL MEASURES, THE ENGINEERING DIVISION WILL BE NOTIFIED FOR FINAL INSPECTION AND APPROVAL.

WATER NOTES

1. ALL WORKMANSHIP AND MATERIAL WILL BE IN ACCORDANCE WITH CITY OF CHEHALIS STANDARDS AND THE MOST RECENT COPY OF THE WSDOT/APWA STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION, AMERICAN WATER WORKS ASSOCIATION (AWWA) STANDARDS AND ANSIS/NSF STANDARD 60 OR 61.
2. GATE VALVES WILL BE RESILIENT WEDGE, NRS (NONRISING STEM) WITH O-RING SEALS. VALVE ENDS WILL BE MECHANICAL JOINT OR ANSI FLANGES. VALVES WILL CONFORM TO AWWA 509-80. VALVES WILL BE MUELLER, M&H, KENNEDY, CLOW R/W OR AMERICAN FLOW CONTROL SERIES 2500. EXISTING VALVES AND ALL VALVES INSTALLED DIRECTLY TO AND CONNECTED TO A PORTION OF THE ACTIVE WATER SYSTEM ARE TO BE OPERATED BY CITY EMPLOYEES ONLY.
3. FIRE HYDRANTS WILL BE MUELLER CENTURION A-423, M&H RELIANT STYLE 129, CLOW MEDALLION, OR KENNEDY GUARDIAN 881D. WATEROUS PACER MODEL WB-67-250 OR AVK 2780. HYDRANTS WILL BE INSTALLED IN ACCORDANCE WITH THE MOST RECENT VERSION OF THE INTERNATIONAL FIRE CODE. HYDRANTS WILL BE BAGGED AND THE CONNECTING GATE VALVES LEFT CLOSED UNTIL THE SYSTEM HAS BEEN APPROVED. HYDRANTS MUST BE PAINTED WITH SUNBURST YELLOW HIGH-GRADE ENAMEL AFTER INSTALLATION.
4. ALL LINES WILL BE CHLORINATED AND TESTED IN CONFORMANCE WITH THE ABOVE-REFERENCED SPECIFICATIONS (SEE NOTE 1).
5. ALL PIPES AND SERVICES WILL BE INSTALLED WITH CONTINUOUS TRACER TAPE PLACED 12 TO 18 INCHES UNDER THE PROPOSED FINISHED SUBGRADE. THE MARKER WILL BE OF PLASTIC, NONBIODEGRADABLE, METAL CORE, OR BACKING MARKED "WATER" THAT CAN BE DETECTED BY A STANDARD METAL DETECTOR. TAPE WILL BE TERRA TAPE "D" OR EQUAL. IN ADDITION TO TRACER TAPE, TONING WIRE WILL BE INSTALLED OVER ALL PIPE AND SERVICES. TONING WIRE WILL BE UL LISTED, TYPE UF, 14-GAUGE SOLID COATED COPPER WIRE, TAPED TO THE TOP OF THE PIPE TO PREVENT MOVEMENT DURING BACKFILLING AND LAID LOOSE ENOUGH TO PREVENT STRETCHING AND DAMAGE BEFORE BEING BROUGHT UP AND TIED OFF AT THE VALVE OPERATING NUT OR VALVE BOX. IF THE OPERATING NUT IS NOT EASILY ACCESSIBLE FROM THE GROUND SURFACE, THE COPPER WIRE WILL BE TIED OFF AT THE VALVE BOX IN SUCH A WAY THAT THE WIRE IS EASILY ACCESSIBLE FROM THE GROUND SURFACE. TWO FEET OF SLACK WILL BE PROVIDED TO ALLOW FOR CONNECTION TO THE LOCATOR.
6. A ONE-POUND MAGNESIUM ANODE WILL BE BURIED WITH THE PIPE EVERY 1,000 LINEAR FEET MAXIMUM FOR CATHODIC PROTECTION OF THE TONING WIRE. TONING WIRE SPLICES AND CONNECTIONS TO ANODES WILL JOIN WIRES BOTH MECHANICALLY AND ELECTRICALLY AND WILL EMPLOY EPOXY RESIN OR HEAT-SHRINK TAPE INSULATION. TONING WIRE WILL BE TESTED PRIOR TO ACCEPTANCE OF THE PIPE SYSTEM. A WRITTEN NOTICE FROM THE CONTRACTOR TO THE CITY MUST BE RECEIVED TWO BUSINESS DAYS PRIOR TO WHEN TESTING IS REQUIRED.
7. THE CONTRACTOR WILL PROVIDE TRAFFIC CONTROL PLAN(S) AS REQUIRED IN ACCORDANCE WITH MUTCD.
8. ALL WATER MAINS WILL BE STAKED FOR GRADES AND ALIGNMENT BY AN ENGINEERING OR SURVEYING FIRM CAPABLE OF PERFORMING SUCH WORK. STAKING WILL BE MAINTAINED THROUGHOUT CONSTRUCTION.
9. ALL WATER SYSTEM CONNECTIONS SERVING BUILDINGS OR PROPERTIES WITH DOMESTIC POTABLE WATER, FIRE SPRINKLER OR IRRIGATION SYSTEMS WILL COMPLY WITH THE MINIMUM BACKFLOW PREVENTION REQUIREMENTS ESTABLISHED BY THE DEPARTMENT OF HEALTH (DOH) AND THE CITY OF CHEHALIS CROSS-CONNECTION CONTROL PROGRAM.
10. CALL UTILITIES UNDERGROUND LOCATION CENTER AT 1-800-424-5555 A MINIMUM OF TWO BUSINESS DAYS PRIOR TO ANY EXCAVATIONS.
11. THE OWNER OF THE WATER SYSTEM SHALL BE NOTIFIED FIVE BUSINESS DAYS PRIOR TO SCHEDULING A WATER SYSTEM SHUTDOWN. THE CITY'S WATER DIVISION WILL PERFORM ALL WATER SYSTEM SHUTDOWNS. WHEN CONNECTIONS REQUIRE "FIELD VERIFICATION," CONNECTION POINTS WILL BE EXPOSED BY THE CONTRACTOR AND FITTINGS VERIFIED BY THE CITY TWO BUSINESS DAYS PRIOR TO THE DISTRIBUTION OF SHUTDOWN NOTICES. CUSTOMERS INVOLVED WITH OR AFFECTED BY WATER SERVICE INTERRUPTIONS WILL BE NOTIFIED AT LEAST 48 HOURS IN ADVANCE. SHUTDOWNS WILL NOT BE PERMITTED ON FRIDAYS, WEEKENDS, OR HOLIDAYS WITHOUT WRITTEN AUTHORIZATION FROM THE DIRECTOR OF PUBLIC WORKS.
12. WHEN CONNECTING TO AN EXISTING WATER LINE WHERE A NEW VALVE IS NOT TO BE INSTALLED, THE EXISTING VALVE MUST BE PRESSURE TESTED TO THESE STANDARDS BY THE CONTRACTOR PRIOR TO CONNECTION. IF AN EXISTING VALVE FAILS TO PASS THE TEST, THE CONTRACTOR WILL MAKE THE NECESSARY ADDITIONAL PROVISIONS TO TEST THE NEW LINE PRIOR TO CONNECTING TO THE EXISTING SYSTEM OR WILL INSTALL A NEW VALVE. NEW LINES WILL NOT BE CONNECTED TO THE EXISTING SYSTEM UNTIL ALL REQUIRED TESTS HAVE BEEN PASSED.

SANITARY SEWER NOTES

1. ALL WORKMANSHIP AND MATERIALS WILL BE IN ACCORDANCE WITH CITY OF CHEHALIS STANDARDS AND THE MOST RECENT COPY OF THE STATE OF WASHINGTON STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION (WSDOT/APWA).
2. ALL APPROVALS AND PERMITS REQUIRED BY LEWIS COUNTY WILL BE OBTAINED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.
3. IF CONSTRUCTION IS TO TAKE PLACE IN THE COUNTY RIGHT-OF-WAY, THE CONTRACTOR WILL NOTIFY THE COUNTY AND OBTAIN ALL THE REQUIRED APPROVALS AND PERMITS. THE COUNTY WILL BE NOTIFIED A MINIMUM OF TWO BUSINESS DAYS IN ADVANCE OF A TAP CONNECTION TO AN EXISTING MAIN. A COUNTY INSPECTOR WILL BE PRESENT AT THE TIME OF THE TAP.
5. THE CONTRACTOR WILL BE FULLY RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES. THE CONTRACTOR WILL VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION BY CALLING THE UTILITIES UNDERGROUND LOCATION CENTER AT 1-800-424-5555 A MINIMUM OF TWO BUSINESS DAYS PRIOR TO ANY EXCAVATION.
6. ALL SEWER MAINS WILL BE FIELD STAKED FOR GRADES AND ALIGNMENT BY A LICENSED ENGINEERING OR SURVEYING FIRM QUALIFIED TO PERFORM SUCH WORK. STAKING WILL BE MAINTAINED THROUGHOUT CONSTRUCTION.
7. ALL PIPE AND SERVICES WILL BE INSTALLED WITH CONTINUOUS TRACER TAPE PLACED 12 TO 18 INCHES UNDER THE PROPOSED FINISHED SUBGRADE. THE MARKER WILL BE OF PLASTIC, NONBIODEGRADABLE, METAL CORE OR BACKING MARKED "SEWER" THAT CAN BE DETECTED BY A STANDARD METAL DETECTOR. IF VISIBILITY CANNOT BE MAINTAINED BETWEEN STRUCTURES ALONG THE STRAIGHT ALIGNMENT OF A SEWER, TONING WIRE WILL BE INSTALLED ABOVE THE SEWER LINE AT A DEPTH NO GREATER THAN 48 INCHES. TAPE WILL BE TERRA TAPE "D" OR AN APPROVED EQUAL. IN ADDITION, STEP MAINS, FORCE MAINS, AND CURVILINEAR SEWERS WILL BE INSTALLED WITH TONING WIRE TAPED TO THE TOP OF THE PIPE TO PREVENT MOVEMENT DURING BACKFILL.
8. IF TONING WIRE IS REQUIRED, IT WILL BE UL LISTED, TYPE UF, 14-GAUGE COPPER. THE WIRE WILL BE LAID LOOSELY ENOUGH TO PREVENT STRETCHING AND DAMAGE. THE WIRE WILL BE WRAPPED TO A MANHOLE OR CLEANOUT RINGS ON GRAVITY SEWER OR VALVE BODY ON STEP MAINS.
9. A ONE-POUND MAGNESIUM ANODE WILL BE BURIED WITH THE PIPE EVERY 1,000 LINEAR FEET MAXIMUM FOR CATHODIC PROTECTION OF THE WIRE. TONING WIRE SPLICES AND CONNECTIONS TO ANODES WILL JOIN WIRES BOTH MECHANICALLY AND ELECTRICALLY AND WILL EMPLOY EPOXY RESIN OR HEAT-SHRINK TAPE INSULATION. TONING WIRE WILL BE TESTED PRIOR TO ACCEPTANCE OF THE PIPE SYSTEM. A WRITTEN NOTICE FROM THE CONTRACTOR TO THE CITY TWO BUSINESS DAYS PRIOR TO TESTING IS REQUIRED. ON A CURVILINEAR SEWER, THE WIRE WILL BE BROUGHT UP, BARED AND WRAPPED THREE TIMES AROUND THE MANHOLE RING. THE TAPE AND WIRE WILL BE FURNISHED AND INSTALLED BY THE CONTRACTOR.
10. BEDDING OF THE SEWER MAIN AND COMPACTION OF THE BACKFILL MATERIAL WILL BE REQUIRED IN ACCORDANCE WITH THE ABOVE SPECIFICATION (SEE GENERAL NOTE 1).
11. EROSION CONTROL MEASURES CONFORMING TO THE MOST RECENT VERSION OF THE CITY OF CHEHALIS STORM WATER MANAGEMENT PLAN AND ARTICLE IV OF THIS CHAPTER WILL BE TAKEN BY THE CONTRACTOR DURING CONSTRUCTION TO PREVENT INFILTRATION OF EXISTING AND PROPOSED STORM DRAINAGE FACILITIES AND ROADWAYS.
12. PROVIDE TRAFFIC CONTROL PLAN(S) IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AS REQUIRED.
13. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE A COPY OF THE APPROVED CONSTRUCTION PLANS ON SITE AT ALL TIMES. APPROVED PLANS ARE TYPICALLY SIGNIFIED BY THE SIGNATURE OF THE DIRECTOR OF PUBLIC WORKS OR DESIGNATED CONSULTANT.
14. ANY CHANGES TO THE DESIGN WILL FIRST BE REVIEWED AND APPROVED BY THE DEVELOPER'S PROJECT ENGINEER AND THE DIRECTOR OF PUBLIC WORKS OR DESIGNATED CONSULTANT PRIOR TO IMPLEMENTATION.
15. PRIOR TO BACKFILL, ALL MAINS AND APPURTENANCES WILL BE INSPECTED AND APPROVED BY A COUNTY INSPECTOR. APPROVAL DOES CONSTITUTE FINAL ACCEPTANCE OF THE SEWER LINE. THE CONTRACTOR WILL RETAIN RESPONSIBILITY TO REPAIR ALL DEFICIENCIES AND FAILURES REVEALED DURING ALL REQUIRED TESTING FOR ACCEPTANCE AND THROUGHOUT THE DURATION OF THE WARRANTY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE ENGINEERING DIVISION IN ADVANCE OF ALL REQUIRED INSPECTIONS. ANY MAIN OR APPURTENANCE BACKFILLED PRIOR TO INSPECTION WILL BE RE-EXCAVATED FOR INSPECTION AT NO COST TO THE CITY.
16. ALL BURIED POWER FOR STEP SYSTEMS WILL BE INSTALLED ACCORDING TO ALL CURRENT AND APPLICABLE ELECTRICAL CODES.
17. ALL BURIED POWER FOR STEP SYSTEMS WILL BE INSTALLED WITH CONTINUOUS TRACER TAPE INSTALLED 12 INCHES ABOVE THE BURIED POWER. THE MARKER WILL BE PLASTIC, NONBIODEGRADABLE METAL CORE BACKING MARKED "POWER." TAPE TO BE FURNISHED BY THE CONTRACTOR.
18. ALL STEP MAINS WILL BE HYDROSTATICALLY TESTED AT 100 PSIG FOR 15 MINUTES ACCORDING TO THE METHODS FOR HYDROSTATIC TESTING OF WATER LINES IN THE MOST RECENT VERSION OF THE WSDOT/APWA SPECIFICATIONS. ALL MATERIALS AND LABOR ARE TO BE PROVIDED BY THE CONTRACTOR. IN ADDITION, ALL STEP MAINS WILL BE PIGGED IN THE PRESENCE OF A COUNTY INSPECTOR, PRIOR TO PLACING THE STEP MAIN IN SERVICE.

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NOTES

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