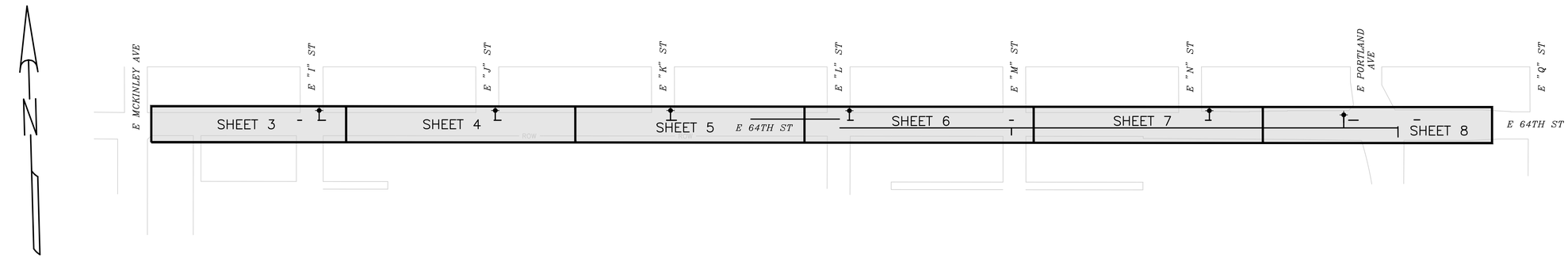
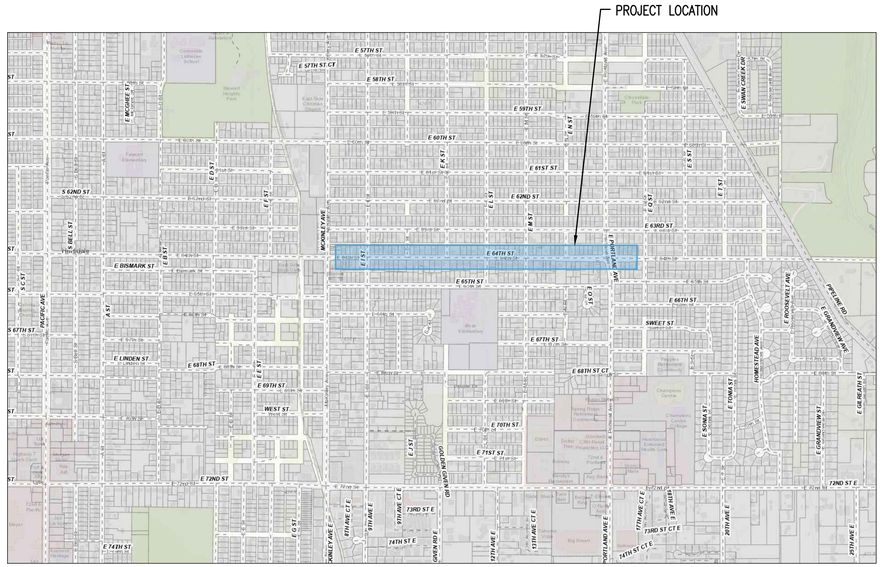
MAIN REPLACEMENT PROJECT 2021-16
E 64TH ST - PHASE 2





SHEET 1	COVER SHEET	
SHEET 2	LEGEND & ABBREVIATIONS	
SHEET 3	E 64TH ST	STA 11+50 TO STA 15+50
SHEET 4	E 64TH ST	STA 15+50 TO STA 21+50
SHEET 5	E 64TH ST	STA 21+50 TO STA 27+50
SHEET 6	E 64TH ST	STA 27+50 TO STA 33+50
SHEET 7	E 64TH ST	STA 33+50 TO STA 39+50
SHEET 8	E 64TH ST	STA 39+50 TO STA 45+00
SHEET 9	E 64TH ST & E "M" ST	
SHEET 10	DETAILS	
SHEET 11	DETAILS	
SHEET 12	DETAILS	
SHEET 13	SURVEY CONTROL	

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TROY A. SAGHAFI
STATE OF WASHINGTON
Troy A. Saghafi
23562
REGISTERED
PROFESSIONAL ENGINEER
02/08/2024

NO	REVISION	DATE	BY	APP'D
3				
2				
1				

REFERENCE

FIELD BOOK | MAP NO. 203/87, 203/106 | BLUE BOOK 28

TACOMA WATER
TACOMA PUBLIC UTILITIES

CITY OF TACOMA
DEPARTMENT OF PUBLIC UTILITIES
WATER DIVISION

MAIN REPLACEMENT PROJECT 2021-16
COVER SHEET FOR
E 64TH ST – PHASE 2
STA 11+50 TO E PORTLAND AVE

DATE 05/20
DESIGNED TAS
DRAWN RJE
CHECKED TAS

APPROVED DocuSigned by: Ali Pelda
PLANNING & ENGINEERING DIVISION

SCALE
HORIZ: NTS
VERT: NTS

DRAWING NO
2021-16

WBS # WTR-00641-03 | SURVEYING | ENGINEERING WTR-00641-03-01 | INSPECTION

SHEET 1 OF 13

LINETYPES

EXISTING	PROPOSED	DESCRIPTION
		CURB
		BUILDING LINE
X	X	FENCE
		GUARDRAIL
		RAILROAD TRACKS
		RETAINING WALL
		CENTERLINE
ROW	P/ROW	RIGHT OF WAY
		EASEMENT
		CULVERT
D	D	DITCH
		SIDE SEWER
14"SS	14"SS	SANITARY SEWER
16"FM	16"FM	FORCED SANITARY
20"SD	20"SD	STORM DRAIN
10"G	10"G	GAS
TEL	TEL	TELEPHONE
FO	FO	FIBER OPTIC
TV	TV	TELEVISION (CATV)
PWR	PWR	POWER
SL	SL	STREETLIGHT
TS	TS	TRAFFIC SIGNAL
JUT	JUT	JOINT UTILITY TRENCH
EX 12" AC MAIN	EX 12" AC MAIN	DISTRIBUTION MAINS
EX 58" STL MAIN	EX 58" STL MAIN	TRANSMISSION MAINS

WATER SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		BYPASS
		CHECK VALVE
		OPEN VALVE
		CLOSED VALVE
478 PRV 251	478 PRV 251	PRESSURE REDUCING VALVE (PRV)
		TEE
		11-1/4° ELL
		22-1/2° ELL
		45° ELL
		90° ELL
		CROSS
		VERTICAL ELL W/ CONCRETE ANCHOR
8929		WATER SERVICE
		SAMPLE STATION
NOT USED		CONCRETE ANCHOR
		REDUCER W/CONCRETE ANCHOR
		BLOW OFF ASSEMBLY
		CAP
		PLUG
		SOLID SLEEVE
		TRANSITION COUPLING
		END CAP COUPLING
		6" FIRE HYDRANT
	NOT USED	4" FIRE HYDRANT

OTHER SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
B	B	BOLLARD
FO	FO	FIBER OPTIC MANHOLE
FO	FO	FIBER OPTIC VAULT
G	G	GAS MANHOLE
		GAS VALVE
		MONUMENT
P	P	POWER MANHOLE
		POWER POLE
		POWER POLE ANCHOR
P	P	POWER VAULT
		RAILROAD SIGN
		SANITARY MANHOLE
SHRUB	SHRUB	SHRUB
		SPRINKLER HEAD
		STORM CATCH BASIN
		STORM MANHOLE
		STREETLIGHT
SL	SL	STREETLIGHT JB
T	T	TELEPHONE JB
T	T	TELEPHONE MANHOLE
		TELEPHONE POLE
TV	TV	TELEVISION JB
		TRAFFIC SIGNAL
TS	TS	TRAFFIC SIGNAL JB
		TREES (CLASS 0-LESS THAN 12")
	NOT USED	TREES (CLASS I-12" UP TO BUT NOT INCLUDING 36")
	NOT USED	TREES (CLASS II-36" UP TO BUT NOT INCLUDING 72")
	NOT USED	TREES (CLASS III-72" UP TO BUT NOT INCLUDING 127")
	NOT USED	TREES (CLASS IV-127" OR MORE - TREE HEIGHT OF 30' OR LESS)
	NOT USED	TREES (CLASS V-127" OR MORE - TREE HEIGHT GREATER THAN 30')

NOT TO SCALE

PAVEMENT

- EXISTING CRUSHED ROCK/GRAVEL
- EXISTING COBBLE STONE/PAVER
- EXISTING ASPHALT/OIL MAT
- EXISTING CONCRETE
- LANDSCAPING
- APPROX PAVEMENT RESTORATION LIMITS
- PAVEMENT RESTORATION
- WATER MAIN

ABBREVIATIONS

A	ANGLE
ABAN	ABANDONED
AC	ASBESTOS CEMENT
APP'D	APPROVED
APPROX	APPROXIMATELY
ASPH	ASPHALT
AVE	AVENUE
B/F	BUTTERFLY
B/O	BLOW OFF
B/O ASSY	BLOW OFF ASSEMBLY
BLVD	BOULEVARD
BM	BENCH MARK
BNSF	BURLINGTON NORTHERN SANTA FE RAILWAY
BVC	BEGIN VERTICAL CURVE
CB	CATCH BASIN
CDF	CONTROLLED DENSITY FILL
CI	CAST IRON
CL	CENTERLINE OR CLASS
CO	CLEAN OUT
CON	CONCRETE
CONN	CONNECTION
CONSTR	CONSTRUCTION
COT	CITY OF TACOMA
CSBC	CRUSHED SURFACING BASE COURSE
CSTC	CRUSHED SURFACING TOP COURSE
CT	COURT
CULV	CULVERT
CY	CUBIC YARD
D	DELTA
DI	DUCTILE IRON
DIA	DIAMETER
DWG	DRAWING
DWY	DRIVEWAY
E	EAST
EA	EACH
ELEC	ELECTRICAL
ELEV	ELEVATION
EOP	EDGE OF PAVEMENT
EQ	EQUATION
EVC	END VERTICAL CURVE
EX	EXISTING
FFE	FINISHED FLOOR ELEVATION
FH	FIRE HYDRANT
FLG	FLANGE
FM	FORCE MAIN
FT	FOOT
GALV	GALVANIZED
GIS	GEOGRAPHIC INFORMATION SYSTEM
GM	GAS METER
GND	GROUND
GV	GATE VALVE
HDPE	HIGH DENSITY POLYETHYLENE
HMA	HOT MIX ASPHALT
HP	HIGH PRESSURE
HYD	HYDRANT
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IN	INCH
IP	INTERMEDIATE PRESSURE
JB	JUNCTION BOX
JUT	JOINT UTILITY TRENCH
L	LENGTH
LC	LENGTH OF CHORD
LF	LINEAR FEET
LEB	LARGE END BELL
LES	LARGE END SPIGOT
LID	LOCAL IMPROVEMENT DISTRICT
MAX	MAXIMUM
MH	MANHOLE
MIC	MON IN CASE
MIL	MILLIMETER
MIN	MINIMUM
MJ	MECHANICAL JOINT
MON	MONUMENT
MRP	MAIN REPLACEMENT PROJECT
N	NORTH
N/A	NOT APPLICABLE
NGVD	NATIONAL GEODETIC VERTICAL DATUM
NO	NUMBER
NTS	NOT TO SCALE
OD	OUTSIDE DIAMETER
OH	OVERHEAD
PC	PIERCE COUNTY
PC	PRIVATE CONTRACT
PC	POINT OF CURVE
PE	POLYETHYLENE
PG	PERFORMANCE GRADE
PI	POINT OF HORIZONTAL INTERSECTION
PKWY	PARKWAY
PL	PLACE
PLS	PLASTIC
PRJ	PROJECT
PROP	PROPOSED
P/ROW	PROPOSED RIGHT OF WAY
PRP	PUBLIC ROAD PROJECT
PRV	PRESSURE REDUCING VALVE
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
PWA	PUBLIC WORKS ADMINISTRATION
R	RADIUS
R	RANGE
R/R	RAILROAD
ROW	RIGHT OF WAY
R/W	RIGHT OF WAY
RD	ROAD
RDWY	ROADWAY
S	SOUTH
SAN	SANITARY
SBM	SURFACE BRASS MON
SEB	SMALL END BELL
SEC	SECTION
SES	SMALL END SPIGOT
SP	SPECIAL
SSB	SUB SURFACE BRASS
SSS	SUB SURFACE STONE
ST	STREET
STL	STEEL
SW	SIDEWALK
T	TANGENT
T	TOWNSHIP
TEMP	TEMPORARY
TL	TRUE LENGTH
TYP	TYPICAL
UG	UNDERGROUND
UNK	UNKNOWN
VERT	VERTICAL
VC	VERTICAL CURVE
W	WEST
W/	WITH
WDP	WATER DIVISION PROJECT
WM	WILLAMETTE MERIDIAN
WO	WORK ORDER
YR	YEAR

STANDARD NOTES

THERE SHALL BE NO SUBSTITUTION OF MATERIALS WITHOUT PRIOR APPROVAL OF TACOMA WATER.

ALL FIRE HYDRANTS SHALL BE INSTALLED IN ACCORDANCE WITH TACOMA WATER DWG 17-56-1.

ALL VALVE BOXES AND TOPS SHALL BE MANUFACTURED IN ACCORDANCE WITH TACOMA WATER DWG 17-56-1.

ALL VALVE BOXES INSTALLED IN PAVING REQUIRE A 36" DIAMETER CONCRETE PAD, 6" THICK WITH 1-1/2" HMA CLASS 3/8" PG 58-22 PATCH PER TACOMA WATER DWG 17-56-1.

THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

USE SHORT LENGTHS OF PIPE AS REQUIRED BY THE INSPECTOR TO MAINTAIN PROPER GRADE AND ALIGNMENT.

CONTRACTOR TO REMOVE EXISTING FIRE HYDRANTS AT THE FOOT, PLUG END OF ABANDONED HYDRANT LATERAL AND RETURN HYDRANTS TO THE TACOMA WATER STOREROOM AT SOUTH 35TH STREET AND UNION AVENUE, TACOMA, WA. INCIDENTAL TO CONTRACT.

CONTRACTOR TO REMOVE EXISTING VALVE BOXES ABANDONED BY THIS PROJECT. INCIDENTAL TO CONTRACT.

CONTRACTOR TO PROTECT EXISTING MAINS AS THEY WILL REMAIN IN SERVICE UNTIL TESTING, SAMPLING AND SERVICE TRANSFERS ARE COMPLETE.

ALL OTHER NEW UTILITIES DESIGNED WITHIN THE PROJECT MUST MAINTAIN A 5' MIN SEPARATION FROM ALL TACOMA WATER STRUCTURES. PERPENDICULAR CROSSINGS ARE ALLOWED WITH A MIN OF 6" OF VERTICAL SEPARATION AND 5' HORIZONTAL FROM GATE VALVES, WATER METERS, FIRE HYDRANTS, AND ALL OTHER WATER APPURTENANCES.

THE CONTRACTOR WILL MAINTAIN ACCESS TO THE JOB SITE AT ALL TIMES. THE ACCESS MUST ALLOW ALL TACOMA WATER SUPPORT STAFF TO SAFELY ACCESS THE SITE. IF THE ACCESS IS DEEMED INACCESSIBLE TO SUPPORT STAFF, ALL TACOMA WATER WORK WILL CEASE UNTIL THE ACCESS DEEMED ACCESSIBLE BY TACOMA WATER.

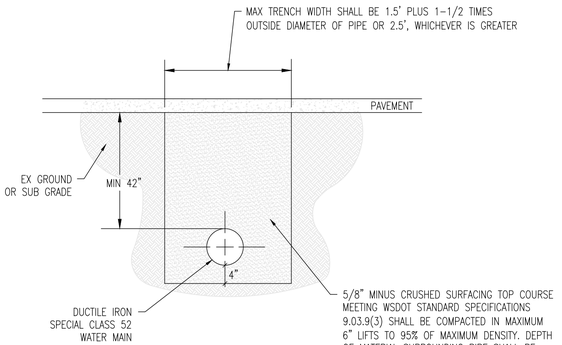
TOPOGRAPHIC DATA SHOWN ON THESE DRAWINGS HAS BEEN PREPARED IN PART BASED ON DATA OBTAINED BY OTHERS. ALTHOUGH THIS INFORMATION IS BELIEVED TO BE ACCURATE, TACOMA WATER DOES NOT TAKE RESPONSIBILITY FOR ANY ERRORS THAT MAY RESULT BASED ON USE OF THIS DATA.

ALL SIDE SEWER STUBS MUST BE AT LEAST 10' FROM WATER SERVICES/FIRE HYDRANTS. WHEN NOT POSSIBLE SIDE SEWERS MUST BE CONSTRUCTED ACCORDING TO THE PROVISIONS OF THE WASHINGTON STATE DEPARTMENT OF ECOLOGY CRITERIA FOR SEWAGE WORKS DESIGN (ORANGE BOOK), AND APPROVED BY THE ENGINEER.

RESTRAINING GLANDS MUST BE USED AS AN ALTERNATIVE TO CONCRETE ANCHORS WHEN IN CONFLICT WITH STRUCTURES, UTILITY PIPES OR UTILITY APPURTENANCES DUE TO SPACE CONSTRAINTS.

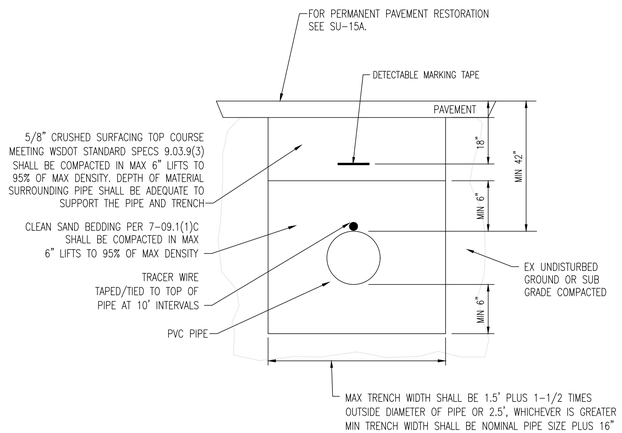
CUSTOMER SIDE PRESSURE REDUCING VALVES TO BE INSTALLED BY TACOMA WATER.

RELOCATION OF WATER METER SERVICE VAULTS WERE DISCUSSED AND EVALUATED WITH TACOMA WATER DEPARTMENT AND PUBLIC WORKS DEPARTMENT ADA SERVICE STAFF AND IT WAS DETERMINED THAT DUE TO RIGHT-OF-WAY CONSTRAINTS, MOST METER BOXES WILL BE LOCATED ON THE SIDEWALKS ON THIS PROJECT. TACOMA WATER WILL CIRCUMVENT INSTALLING METER BOXES ON SIDEWALKS IF THE OPPORTUNITY EXITS DURING CONSTRUCTION.



TYPICAL WATER MAIN TRENCH SECTION

NOT TO SCALE



PVC WATER MAIN TRENCH SECTION

NOT TO SCALE

STA 26+10 TO STA 43+03

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TROY A. SAGHAFI
STATE OF WASHINGTON
Digitally signed by Troy Saghafi
43391
55625
REGISTERED
PROFESSIONAL ENGINEER
02/08/2024

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1				

REFERENCE

FIELD BOOK | MAP NO. 203/87, 203/106 | BLUE BOOK 28

TACOMA WATER
TACOMA PUBLIC UTILITIES

CITY OF TACOMA
DEPARTMENT OF PUBLIC UTILITIES
WATER DIVISION

MAIN REPLACEMENT PROJECT 2021-16
LEGEND & ABBREVIATIONS FOR
E 64TH ST - PHASE 2
STA 11+50 TO E PORTLAND AVE

DATE 05/20
DESIGNED TAS
DRAWN RJE
CHECKED TAS

APPROVED DocuSigned by: Ali Polda
PLANNING & ENGINEERING DIVISION

SCALE
HORIZ: NTS
VERT: NTS

DRAWING NO
2021-16

WBS # WTR-00641-03 | SURVEYING | ENGINEERING WTR-00641-03-01 | INSPECTION

SHEET 2 OF 13

E 64TH ST

SW1/4-SEC22-T20N-R3E-WM
NW1/4-SEC27-T20N-R3E-WM

CONTRACTOR TO ABANDON, HAUL, AND DISPOSE 2-EX 14" VALVE AND CHAMBERS, AND 4-EX 16"X 14" REDUCERS.

4-16" TRANSITION COUPLING W/14" CENTER RING (DI TO CI)
2-16" B/F VALVE MJ

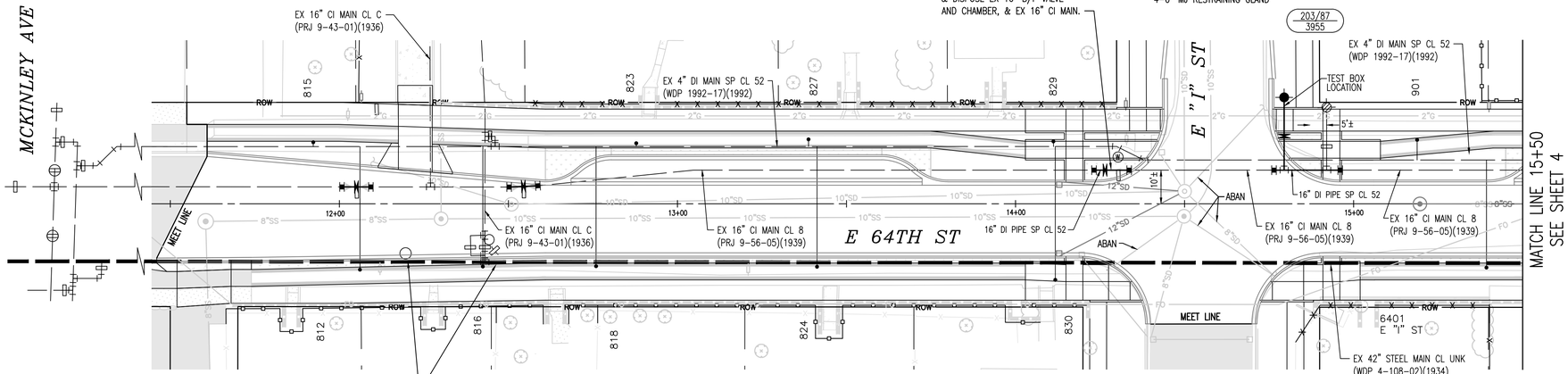
CONTRACTOR TO REPLACE AND RELOCATE EXISTING HYDRANT. HAUL AND DISPOSE EX HYDRANT ASSEMBLY, 6" GATE VALVE, AND 16"X 6" HYDRANT TEE. ALL VALVES NOT PERMITTED TO BE INSTALLED ON PROPOSED SIDEWALK.

CONTRACTOR TO ABANDON, HAUL, AND DISPOSE EX 16" VALVE AND CHAMBER.

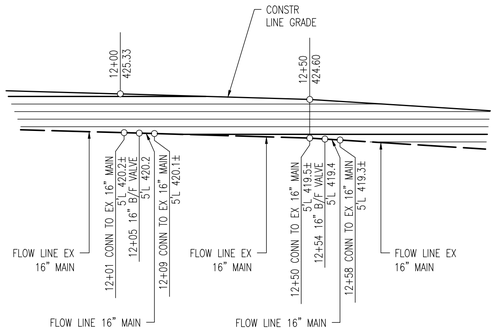
4-16" TRANSITION COUPLING W/14" CENTER RING (DI TO CI)
16" B/F VALVE MJ

16"X 6" TEE MJ
6" GATE VALVE MJ
6" FIRE HYDRANT MJ (DWG 17-56-1)
4-6" MJ RESTRAINING GLAND

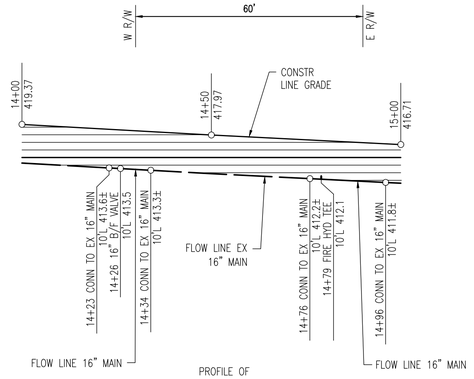
CONTRACTOR TO ABANDON, HAUL & DISPOSE EX 16" B/F VALVE AND CHAMBER, & EX 16" CI MAIN.



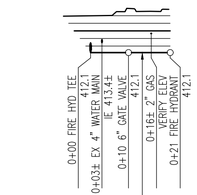
WATER SUPPLY MANHOLE ADJUSTMENT SPECIFICATIONS AND DETAILS ARE ON SHEET 9



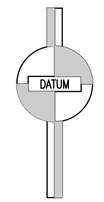
PROFILE OF
E 64TH ST



PROFILE OF
E 64TH ST



PROFILE OF
14+79 HYD LATERAL



NGVD29

NOTE:

ABANDONED PIPE SHALL BE PLUGGED AT ENDS PER TACOMA WATER INSPECTORS DISCRETION AND METHODOLOGY.

CONTRACTOR	
SUPPLIER	
PIPE	
HYDRANTS	
VALVES	

INSPECTOR	
PRE-CONSTRUCTION	
PERMIT NUMBER	
ACTIVATE PERMIT	
START	
FILL MAIN	
PRESSURE TEST	
FLUSHED	
SAMPLES LOGGED IN BOOK	
1ST SET OF SAMPLES	
2ND SET OF SAMPLES	
MAIN IN SERVICE	
PROJECT COMPLETION LETTER	
HYDRANT DATA SHEETS	
B/O DATA SHEETS	
FINAL CHECK	
CLOSE PERMIT	
YEARLY PROJECTS INSPECTORS OFFICE	

PHASES				
SECTION	START	FILL	TEST	IN SERVICE

SUPPLY HEAD 478', 581'

20 10 0 20 40 60

SCALE IN FEET

FINAL PAVEMENT RESTORATION LIMITS TO BE DETERMINED BY PUBLIC WORKS INSPECTOR IN FIELD.

APPROVED AS TO ALIGNMENT AND GRADE

02/13/2024 DocuSigned by: Ramiro Chavez 1FE94B0C44CE498... DATE

DS CITY ENGINEER

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NO	REVISION	DATE	BY	APP'D
3				
2				
1				

REFERENCE

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TACOMA WATER
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CITY OF TACOMA
DEPARTMENT OF PUBLIC UTILITIES
WATER DIVISION

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WATER MAINS AND FIRE HYDRANTS FOR
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APPROVED DocuSigned by: Ali Polda
PLANNING & ENGINEERING DIVISION

SCALE
HORIZ: 1"=20'
VERT: 1"=10'

DRAWING NO
2021-16

WBS # WTR-00641-03 | SURVEYING | ENGINEERING WTR-00641-03-01 | INSPECTION

SHEET 3 OF 13

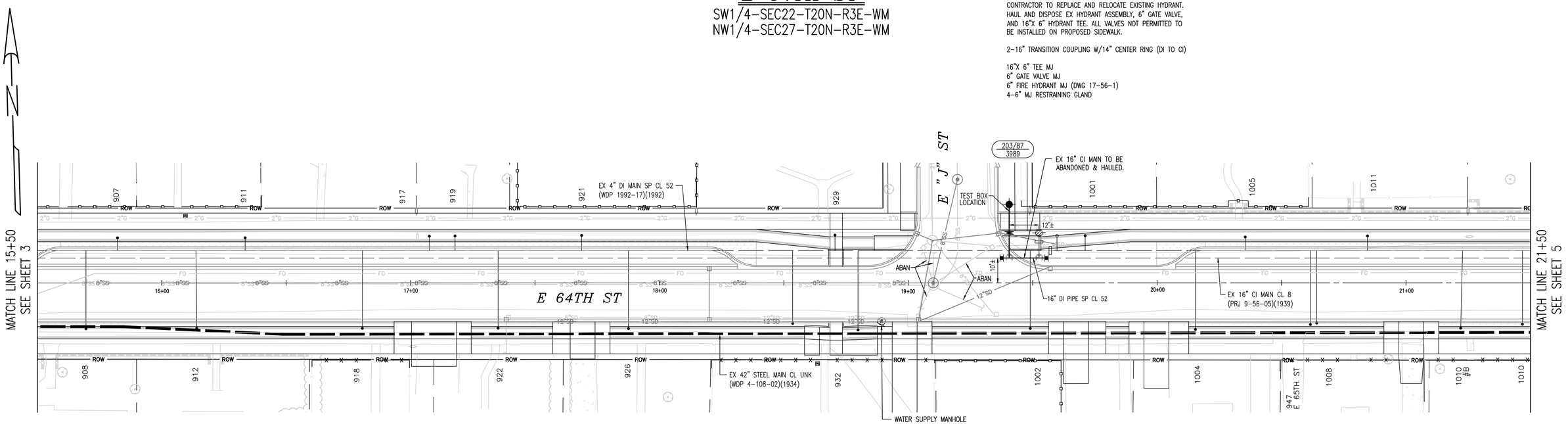
E 64TH ST

SW1/4-SEC22-T20N-R3E-WM
NW1/4-SEC27-T20N-R3E-WM

CONTRACTOR TO REPLACE AND RELOCATE EXISTING HYDRANT. HAUL AND DISPOSE EX HYDRANT ASSEMBLY, 6" GATE VALVE, AND 16"X 6" HYDRANT TEE. ALL VALVES NOT PERMITTED TO BE INSTALLED ON PROPOSED SIDEWALK.

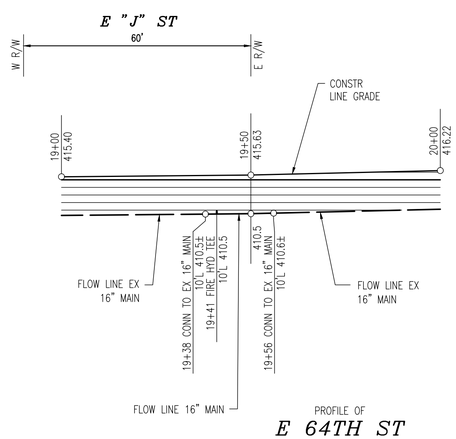
2-16" TRANSITION COUPLING W/14" CENTER RING (DI TO CI)

16"X 6" TEE MJ
6" GATE VALVE MJ
6" FIRE HYDRANT MJ (DWG 17-56-1)
4-6" MJ RESTRAINING GLAND

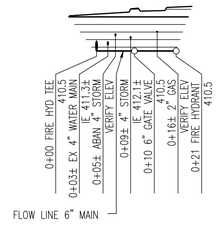


NOTE:

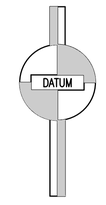
ABANDONED PIPE SHALL BE PLUGGED AT ENDS PER TACOMA WATER INSPECTORS DISCRETION AND METHODOLOGY.



PROFILE OF
E 64TH ST



PROFILE OF
19+41 HYD LATERAL



NGVD29

SUPPLY HEAD 478', 581'

20 10 0 20 40 60

SCALE IN FEET

FINAL PAVEMENT RESTORATION LIMITS TO BE DETERMINED BY PUBLIC WORKS INSPECTOR IN FIELD.

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APPROVED — DocuSigned by: Ali Pekda — PLANNING & ENGINEERING DIVISION

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SHEET 4 OF 13

E 64TH ST

SW1/4-SEC22-T20N-R3E-WM
NW1/4-SEC27-T20N-R3E-WM

NOTE:

ABANDONED PIPE SHALL BE PLUGGED AT ENDS PER TACOMA WATER INSPECTORS DISCRETION AND METHODOLOGY.

CONTRACTOR TO REPLACE AND RELOCATE EXISTING HYDRANT. HAUL AND DISPOSE EX HYDRANT ASSEMBLY, 6" GATE VALVE, AND 16"X 6" HYDRANT TEE. ALL VALVES NOT PERMITTED TO BE INSTALLED ON PROPOSED SIDEWALK.

2-16" TRANSITION COUPLING W/14" CENTER RING (DI TO CI)
16" B/F VALVE MJ

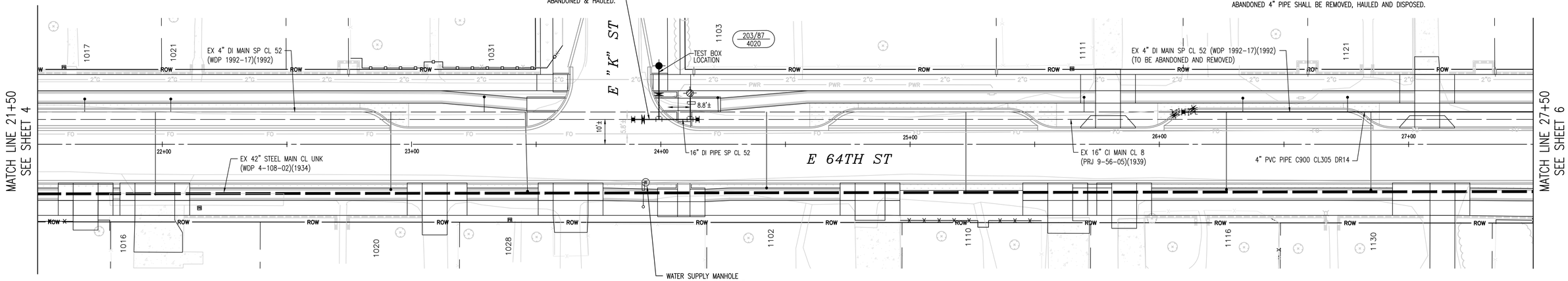
16"X 6" TEE MJ
6" GATE VALVE MJ
6" FIRE HYDRANT MJ (DWG 17-56-1)
4-6" MJ RESTRAINING GLAND

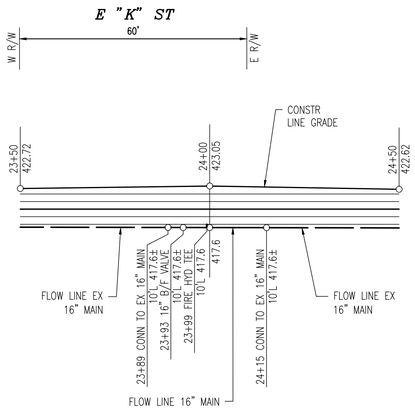
CONTRACTOR TO VERIFY THE LOCATION, ELEV, AND OD OF THE EX 4" DI MAIN AND MAKE THE CONNECTION AFTER FLUSHING, SAMPLING, AND TESTING IS COMPLETE. NEW 4" PVC PIPE INSTALLED INLINE OF EXISTING 4" DI MAIN.

4" SOLID SLEEVE MJ (LONG)
2-4" MJ RESTRAINING GLAND

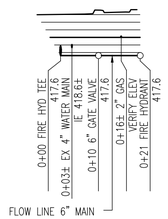
2-4" TEMP CAP MJ TAPPED 2"
2-TEMP 2" B/O ASSEMBLY (DWG 17-56-1)
2-TEMP CONCRETE ANCHOR

NOTE:
ABANDONED 4" PIPE SHALL BE REMOVED, HAULED AND DISPOSED.

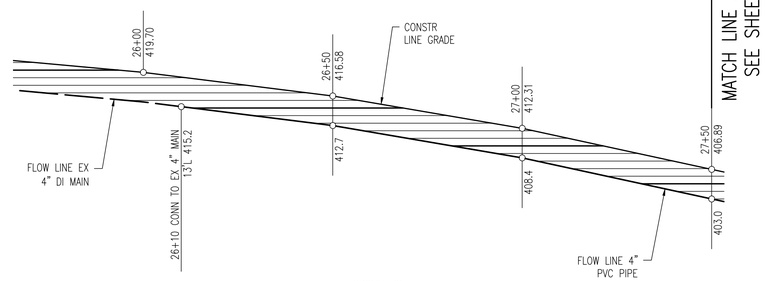




PROFILE OF
E 64TH ST



PROFILE OF
23+99 HYD LATERAL



PROFILE OF
E 64TH ST

DATUM

NGVD29

SUPPLY HEAD 478', 581'

20 10 0 20 40 60

SCALE IN FEET

FINAL PAVEMENT RESTORATION LIMITS TO BE DETERMINED BY PUBLIC WORKS INSPECTOR IN FIELD.

APPROVED AS TO ALIGNMENT AND GRADE

02/13/2024 DocuSigned by: Ramiro Chavez 1FE94B0C44CE498... DATE

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02/08/2024

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3				
2				
1				

REFERENCE

FIELD BOOK | MAP NO. 203/87, 203/106 | BLUE BOOK 28

TACOMA WATER — TACOMA PUBLIC UTILITIES

CITY OF TACOMA
DEPARTMENT OF PUBLIC UTILITIES
WATER DIVISION

MAIN REPLACEMENT PROJECT 2021-16
WATER MAINS AND FIRE HYDRANTS FOR
E 64TH ST - PHASE 2
STA 21+50 TO STA 27+50

DATE 05/20
DESIGNED TAS
DRAWN RJE
CHECKED TAS

APPROVED DocuSigned by: Ali Polda
PLANNING & ENGINEERING DIVISION

SCALE
HORIZ: 1"=20'
VERT: 1"=10'

DRAWING NO
2021-16

WBS # WTR-00641-03 | SURVEYING | ENGINEERING WTR-00641-03-01 | INSPECTION

SHEET 5 OF 13

E 64TH ST

SW1/4-SEC22-T20N-R3E-WM
NW1/4-SEC27-T20N-R3E-WM

CONTRACTOR TO VERIFY THE LOCATION, ELEV, AND OD OF THE EX 8" CI MAIN AND MAKE THE CONNECTION AFTER FLUSHING, SAMPLING, AND TESTING IS COMPLETE. TAPPING BY SPEER TAPS, INC ONLY.

CONTRACTOR TO VERIFY THE LOCATION, ELEV, AND OD OF THE EX 4" DI MAIN AND MAKE THE CONNECTION AFTER FLUSHING, SAMPLING, AND TESTING IS COMPLETE.

4" SOLID SLEEVE MJ (LONG)
2-4" MJ RESTRAINING GLANDS
3-8" MJ RESTRAINING GLANDS
8" TAPPING GATE VALVE MJ
8" TAPPING SLEEVE (FOR 8" CI MAIN)
CONCRETE ANCHOR

TEMP 8" CAP MJ TAPPED 2"
TEMP 8" PLUG MJ TAPPED 2"
2-TEMP 2" B/O ASSEMBLY (DWG 17-56-1)
2-TEMP CONCRETE ANCHOR

CONTRACTOR TO REPLACE AND RELOCATE EXISTING HYDRANT. HAUL AND DISPOSE EX HYDRANT ASSEMBLY, 6" GATE VALVE, AND 16"X 6" HYDRANT TEE. ALL VALVES NOT PERMITTED TO BE INSTALLED ON PROPOSED SIDEWALK.

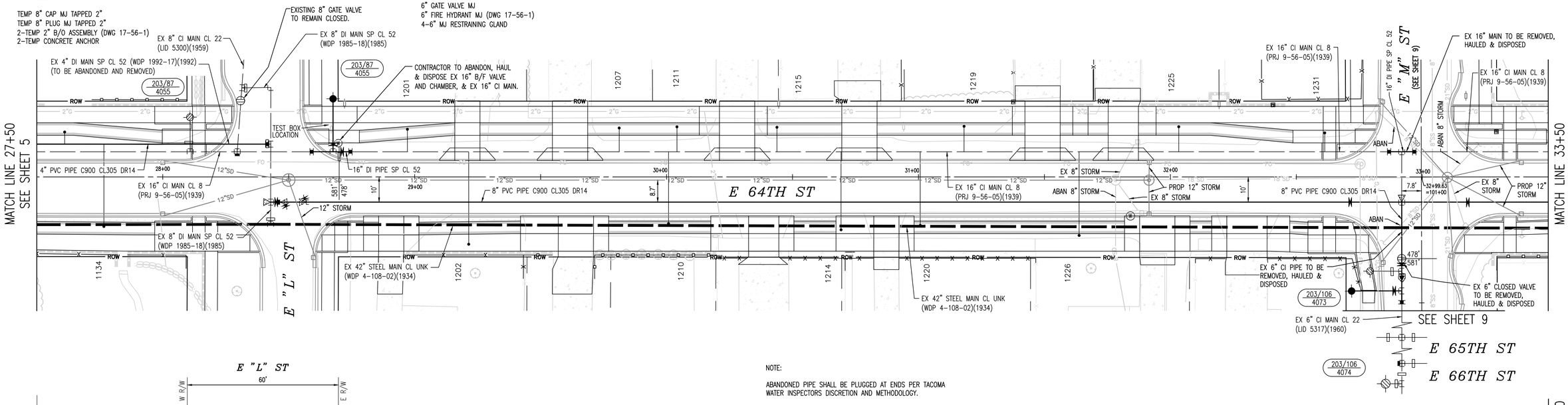
CONTRACTOR TO ABANDON, HAUL, & DISPOSE EX 16" B/F VALVE AND CHAMBER.

2-16" TRANSITION COUPLING W/14" CENTER RING (DI TO CI)
16" B/F VALVE MJ

16"X 6" TEE MJ
6" GATE VALVE MJ
6" FIRE HYDRANT MJ (DWG 17-56-1)
4-6" MJ RESTRAINING GLAND

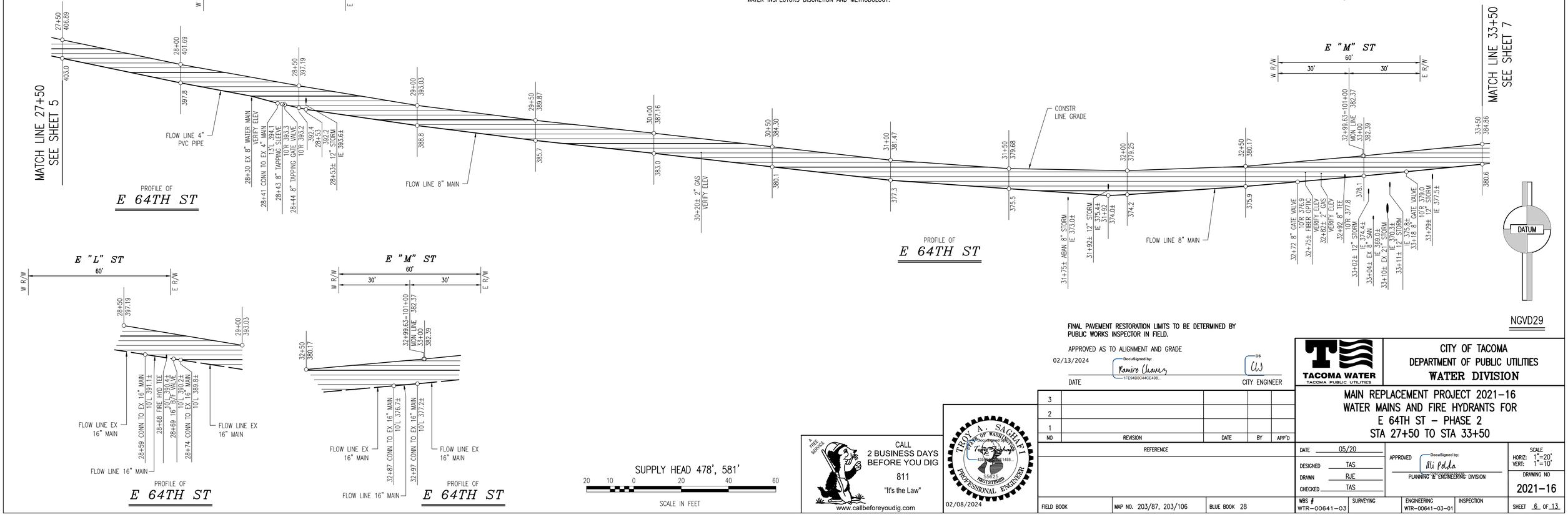
CONTRACTOR TO REMOVE, HAUL, & DISPOSE EX 6" CLOSED VALVE AND EX 16"X 6" TEE.

2-8" GATE VALVE MJ
8" TEE MJ
2-16" TRANSITION COUPLING W/14" CENTER RING (CI TO DI)
CONCRETE ANCHOR



NOTE:

ABANDONED PIPE SHALL BE PLUGGED AT ENDS PER TACOMA WATER INSPECTORS DISCRETION AND METHODOLOGY.



SUPPLY HEAD 478', 581'

20 10 0 20 40 60
SCALE IN FEET

NGVD29

FINAL PAVEMENT RESTORATION LIMITS TO BE DETERMINED BY PUBLIC WORKS INSPECTOR IN FIELD.

APPROVED AS TO ALIGNMENT AND GRADE

02/13/2024 DocuSigned by: Ramiro Chavez 1FE94B0C44CE498... DS CW
DATE CITY ENGINEER

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02/08/2024

TACOMA WATER — TACOMA PUBLIC UTILITIES

CITY OF TACOMA
DEPARTMENT OF PUBLIC UTILITIES
WATER DIVISION

MAIN REPLACEMENT PROJECT 2021-16
WATER MAINS AND FIRE HYDRANTS FOR
E 64TH ST - PHASE 2
STA 27+50 TO STA 33+50

DATE 05/20
DESIGNED TAS
DRAWN RJE
CHECKED TAS

APPROVED DocuSigned by: Ali Pelda
PLANNING & ENGINEERING DIVISION

SCALE HORIZ: 1"=20' VERT: 1"=10'
DRAWING NO 2021-16

FIELD BOOK | MAP NO. 203/87, 203/106 | BLUE BOOK 28
WBS # WTR-00641-03 | SURVEYING | ENGINEERING WTR-00641-03-01 | INSPECTION
SHEET 6 OF 13

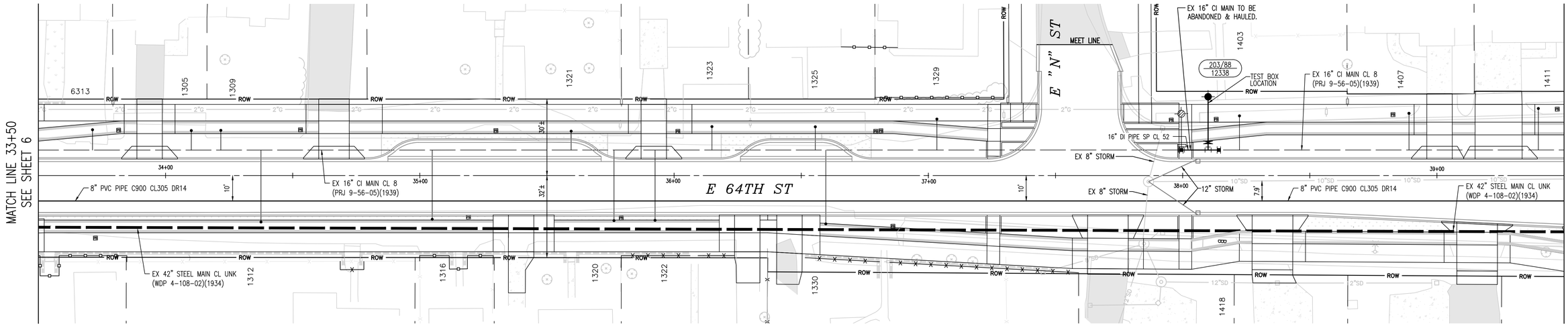
E 64TH ST

SE1/4-SEC22-T20N-R3E-WM
NE1/4-SEC27-T20N-R3E-WM

CONTRACTOR TO REPLACE AND RELOCATE EXISTING HYDRANT. HAUL AND DISPOSE EX HYDRANT ASSEMBLY, 6" GATE VALVE, AND 16"X 6" HYDRANT TEE. ALL VALVES NOT PERMITTED TO BE INSTALLED ON PROPOSED SIDEWALK.

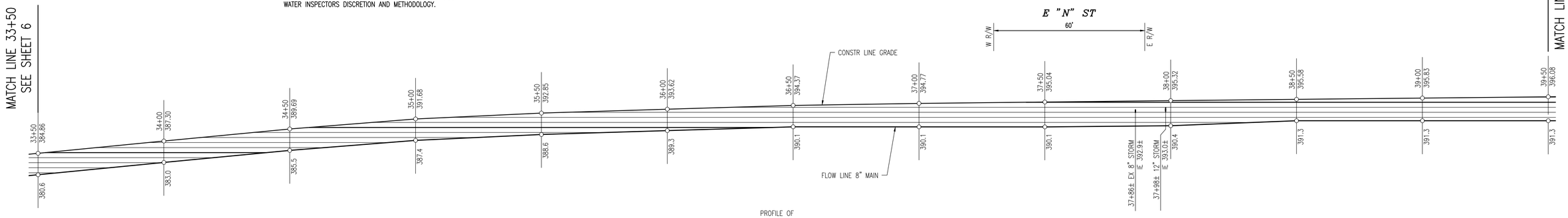
2-16" TRANSITION COUPLING W/14" CENTER RING (DI TO CI)

16"X 6" TEE MJ
6" GATE VALVE MJ
6" FIRE HYDRANT MJ (DWG 17-56-1)
4-6" MJ RESTRAINING GLAND

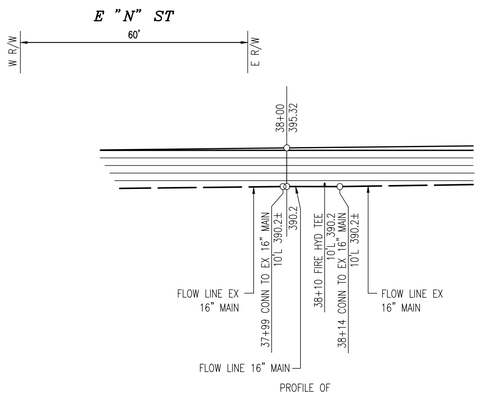


NOTE:

ABANDONED PIPE SHALL BE PLUGGED AT ENDS PER TACOMA WATER INSPECTORS DISCRETION AND METHODOLOGY.



PROFILE OF
E 64TH ST



PROFILE OF
E 64TH ST

NGVD29

SUPPLY HEAD 478', 581'

20 10 0 20 40 60
SCALE IN FEET

FINAL PAVEMENT RESTORATION LIMITS TO BE DETERMINED BY PUBLIC WORKS INSPECTOR IN FIELD.

APPROVED AS TO ALIGNMENT AND GRADE

02/13/2024 DATE — DocuSigned by: Ramiro Chavez 1FE94B0C44CE498... — DS — CITY ENGINEER

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02/08/2024

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2				
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REFERENCE

FIELD BOOK | MAP NO. 203/87, 203/106 | BLUE BOOK 28

TACOMA WATER — TACOMA PUBLIC UTILITIES

CITY OF TACOMA
DEPARTMENT OF PUBLIC UTILITIES
WATER DIVISION

MAIN REPLACEMENT PROJECT 2021-16
WATER MAINS AND FIRE HYDRANTS FOR
E 64TH ST - PHASE 2
FROM STA 33+50 TO STA 39+50

DATE 05/20
DESIGNED TAS
DRAWN RJE
CHECKED TAS

APPROVED — DocuSigned by: Ali Pelda — PLANNING & ENGINEERING DIVISION

SCALE
HORIZ: 1"=20'
VERT: 1"=10'

DRAWING NO
2021-16

WBS # WTR-00641-03 | SURVEYING | ENGINEERING WTR-00641-03-01 | INSPECTION

SHEET 7 OF 13

E 64TH ST

SE1/4-SEC22-T20N-R3E-WM
NE1/4-SEC27-T20N-R3E-WM

CONTRACTOR TO VERIFY THE LOCATION, ELEV, AND OD OF THE EX 16" CI MAIN AND MAKE THE CONNECTION AFTER FLUSHING, SAMPLING, AND TESTING IS COMPLETE.

CONTRACTOR TO REPLACE AND RELOCATE EXISTING HYDRANT. HAUL AND DISPOSE EX HYDRANT ASSEMBLY, 6" GATE VALVE, AND 16"X 6" HYDRANT TEE.

8" GATE VALVE MJ
2-8" MJ RESTRAINING GLAND
CONCRETE ANCHOR

TEMP 8" PLUG MJ TAPPED 2"
TEMP 2" B/O ASSEMBLY (DWG 17-56-1)
TEMP CONCRETE ANCHOR

8"X 6" TEE MJ
6" GATE VALVE MJ
2-6" VERTICAL ELL MJ 45° (DWG 17-56-1)
6" FIRE HYDRANT MJ (DWG 17-56-1)
4-6" MJ RESTRAINING GLAND

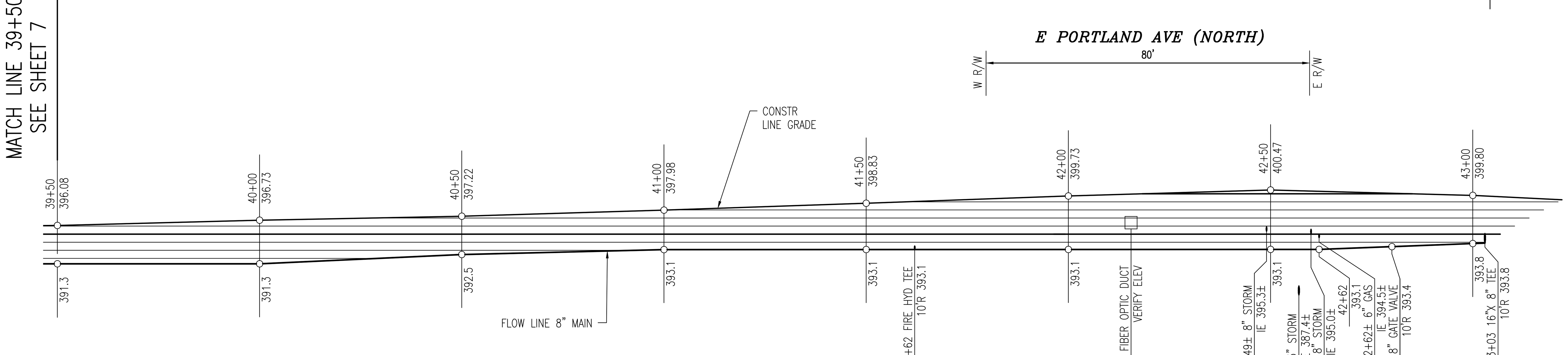
CONTRACTOR TO ABANDON, HAUL, AND DISPOSE EX 16" VALVE AND CHAMBER.

16" B/F VALVE MJ
16"X 8" TEE MJ
6-16" MJ RESTRAINING GLAND
2-16" TRANSITION COUPLING W/14" CENTER RING (DI TO CI)

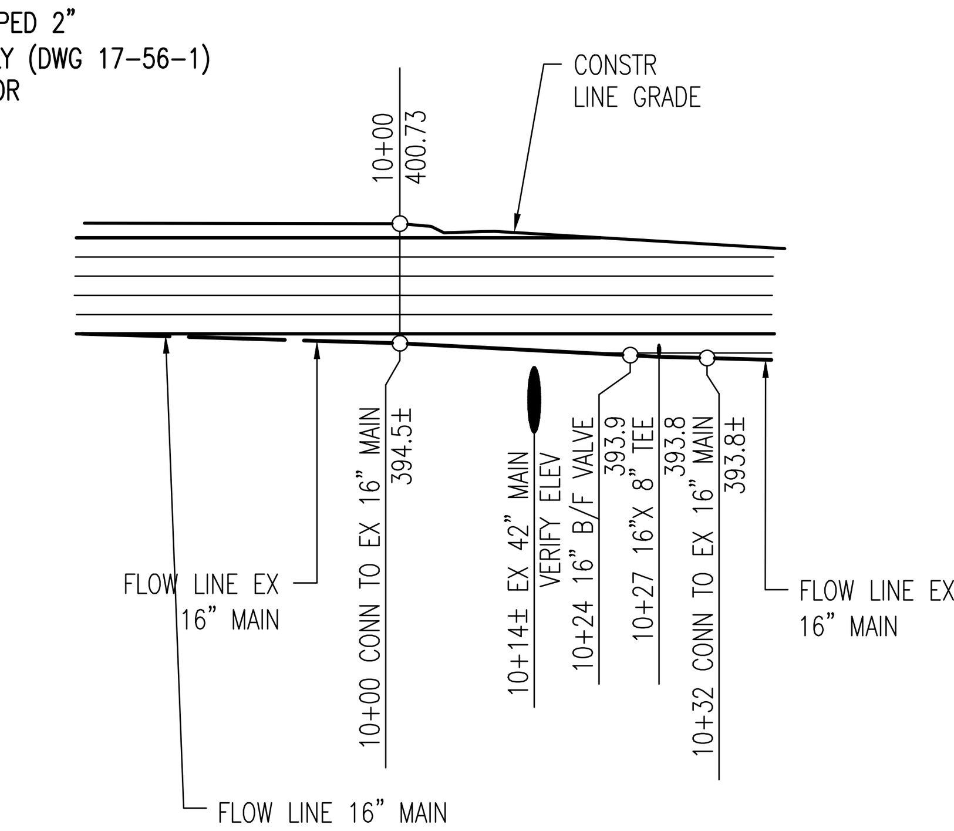
2-TEMP 16" CAP MJ TAPPED 2"
2-TEMP 2" B/O ASSEMBLY (DWG 17-56-1)
2-TEMP CONCRETE ANCHOR

NOTE:

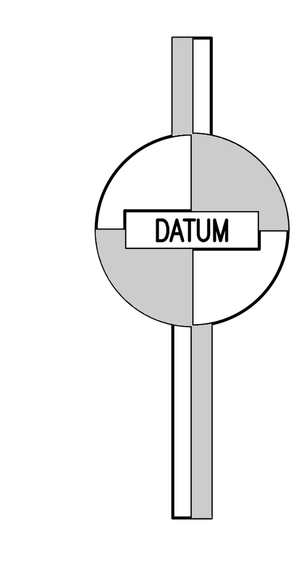
ABANDONED PIPE SHALL BE PLUGGED AT ENDS PER TACOMA WATER INSPECTORS DISCRETION AND METHODOLOGY.



PROFILE OF
E 64TH ST



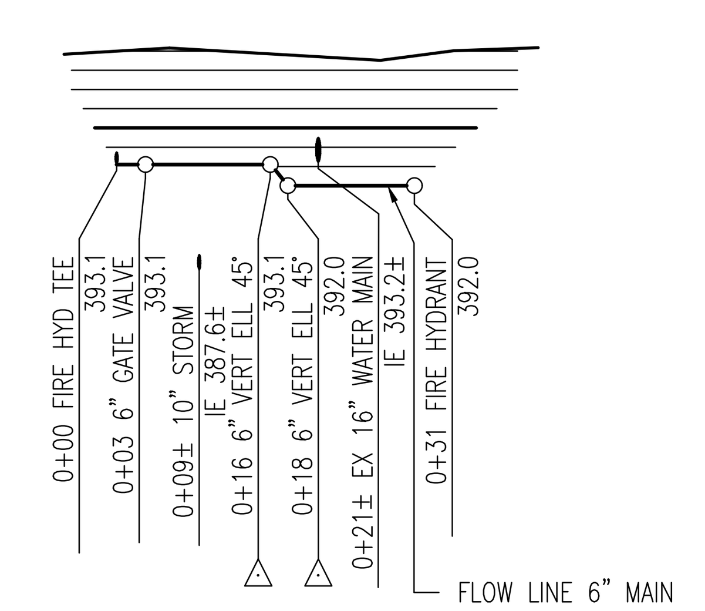
PROFILE OF
16" MAIN
(SOUTH END OF E PORTLAND AVE)



NGVD29

SUPPLY HEAD 478', 581'

SCALE IN FEET



PROFILE OF
41+62 HYD LATERAL

FINAL PAVEMENT RESTORATION LIMITS TO BE DETERMINED BY PUBLIC WORKS INSPECTOR IN FIELD.

APPROVED AS TO ALIGNMENT AND GRADE

02/13/2024 — DATE — CITY ENGINEER

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REFERENCE

FIELD BOOK | MAP NO. 203/87, 203/106 | BLUE BOOK 28

TACOMA WATER — TACOMA PUBLIC UTILITIES

CITY OF TACOMA
DEPARTMENT OF PUBLIC UTILITIES
WATER DIVISION

MAIN REPLACEMENT PROJECT 2021-16
WATER MAINS AND FIRE HYDRANTS FOR
E 64TH ST – PHASE 2
FROM STA 39+50 TO E PORTLAND AVE

DATE 05/20	APPROVED	SCALE HORIZ: 1"=20' VERT: 1"=10'	
DESIGNED TAS	PLANNING & ENGINEERING DIVISION	DRAWING NO	2021-16
DRAWN RJE			
CHECKED TAS			
WBS # WTR-00641-03	SURVEYING	ENGINEERING WTR-00641-03-01	INSPECTION

SHEET 8 OF 13

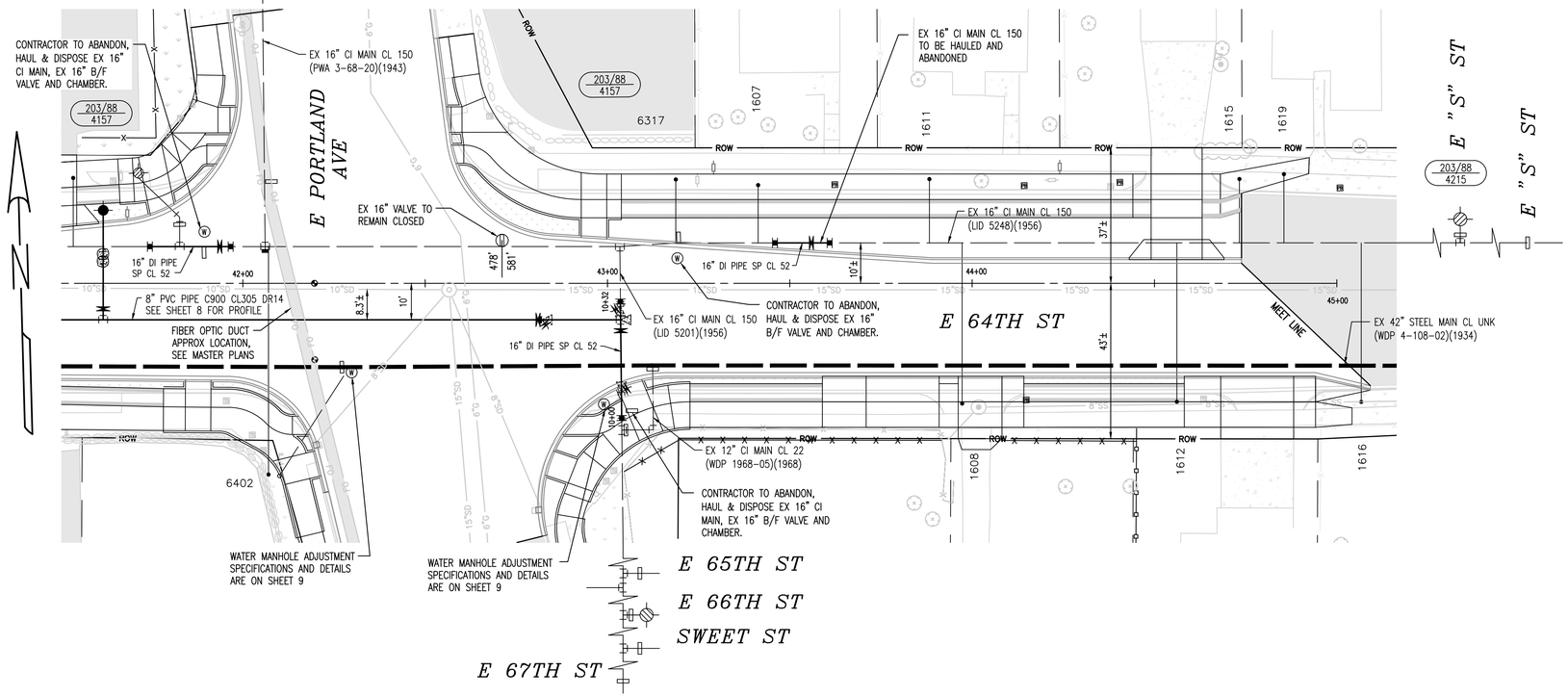
E 64TH ST

SE1/4-SEC22-T20N-R3E-WM
NE1/4-SEC27-T20N-R3E-WM

E 60TH ST
E 61ST ST
E 62ND ST
E 63RD ST

CONTRACTOR TO ABANDON, HAUL, AND DISPOSE EX 16" VALVE AND CHAMBER. ALL VALVES NOT PERMITTED TO BE INSTALLED ON PROPOSED SIDEWALK.

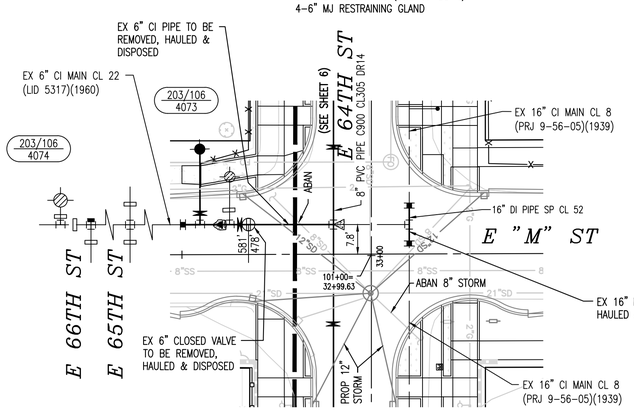
2-16" B/F VALVE MJ
4-16" TRANSITION COUPLING W/14" CENTER RING (DI TO CI)

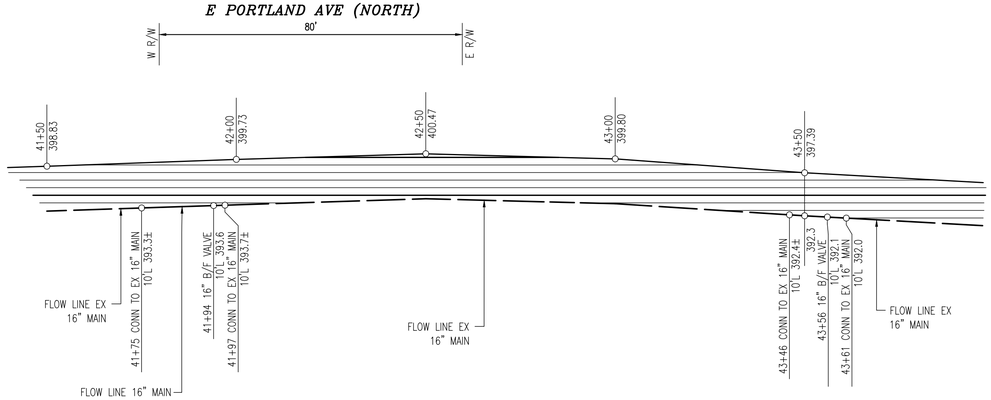


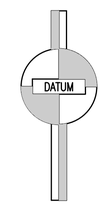
CONTRACTOR TO VERIFY THE LOCATION, ELEV, AND OD OF THE EX 6" CI MAIN AND MAKE THE CONNECTION AFTER FLUSHING, SAMPLING, AND TESTING IS COMPLETE.

8" GATE VALVE MJ
6" TRANSITION COUPLING W/7" CENTER RING (CI TO DI)
8"X 6" REDUCER MJ (DWG 17-56-1)

6" TEE MJ
6" GATE VALVE MJ
6" FIRE HYDRANT MJ (DWG 17-56-1)
4-6" MJ RESTRAINING GLAND







NGVD29

SUPPLY HEAD 478', 581'

20 10 0 20 40 60
SCALE IN FEET

NOTE:

ABANDONED PIPE SHALL BE PLUGGED AT ENDS PER TACOMA WATER INSPECTORS DISCRETION AND METHODOLOGY.

FINAL PAVEMENT RESTORATION LIMITS TO BE DETERMINED BY PUBLIC WORKS INSPECTOR IN FIELD.

APPROVED AS TO ALIGNMENT AND GRADE

02/13/2024 DocuSigned by: Ramiro Chavez 1FE94B0C44CE498... DS
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REFERENCE

FIELD BOOK | MAP NO. 203/87, 203/106 | BLUE BOOK 28

TACOMA WATER
TACOMA PUBLIC UTILITIES

CITY OF TACOMA
DEPARTMENT OF PUBLIC UTILITIES
WATER DIVISION

MAIN REPLACEMENT PROJECT 2021-16
WATER MAINS AND FIRE HYDRANTS FOR
E 64TH ST - PHASE 2

DATE 05/20
DESIGNED TAS
DRAWN RJE
CHECKED TAS

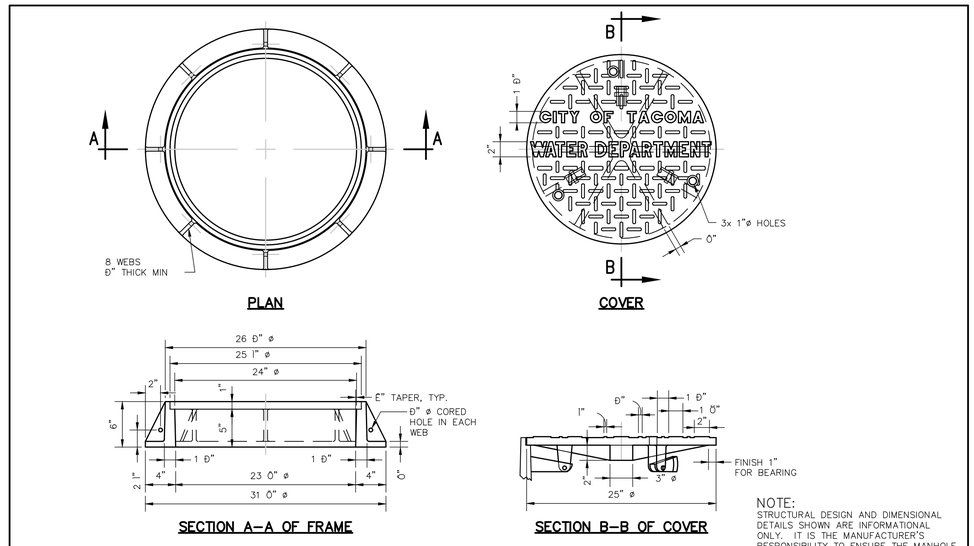
APPROVED DocuSigned by: Ali Poida
PLANNING & ENGINEERING DIVISION

SCALE HORIZ: 1"=20' VERT: 1"=10'
DRAWING NO 2021-16

WBS # WTR-00641-03 | SURVEYING | ENGINEERING WTR-00641-03-01 | INSPECTION

SHEET 9 OF 13

DETAILS



CAD

NO.	REVISION	DATE	BY	APP'D
3				
2	DIGITIZED	1-02	SRL	
1	CHG. FRAME DIMENSION	6-78	CDG	

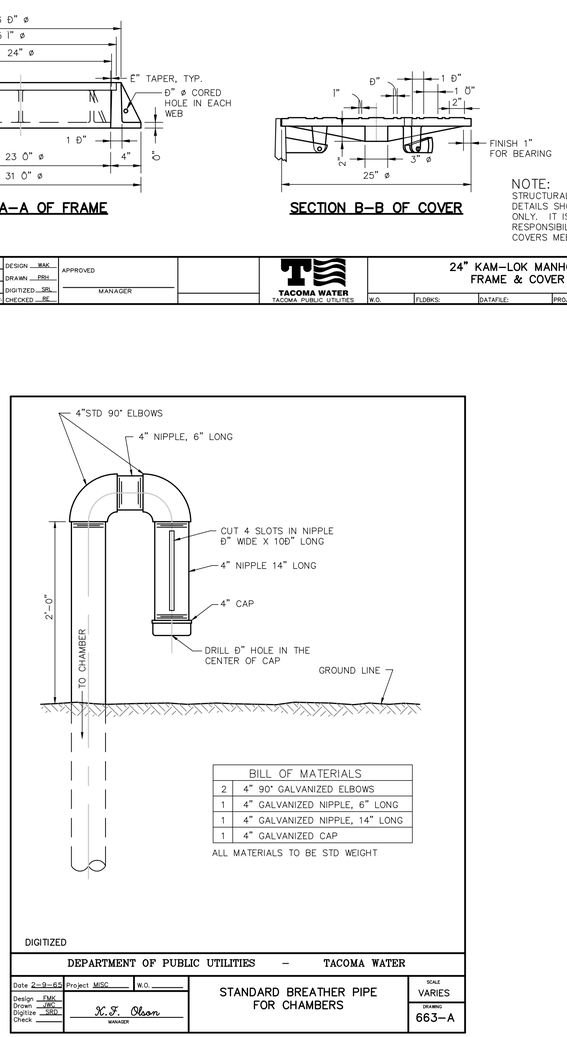
DESIGN ___MAK___
DRAWN ___PBG___
DIGITIZED ___SRL___
CHECKED ___RE___
APPROVED
MANAGER

TACOMA WATER
TACOMA PUBLIC UTILITIES

24" KAM–LOK MANHOLE
FRAME & COVER

W.O. | FLDBK'S: | DATAFILE: | PROJ.: | DATE: 10–9–50

SCALE VARIES
DRAWING 576–B1



BILL OF MATERIALS	
2	4" 90° GALVANIZED ELBOWS
1	4" GALVANIZED NIPPLE, 6" LONG
1	4" GALVANIZED NIPPLE, 14" LONG
1	4" GALVANIZED CAP

ALL MATERIALS TO BE STD WEIGHT

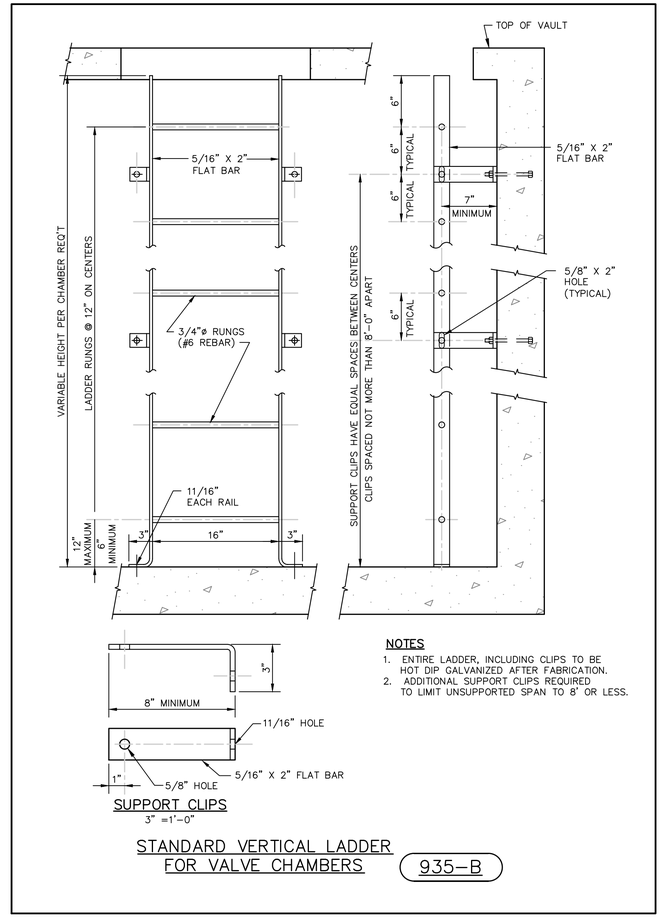
DIGITIZED

DEPARTMENT OF PUBLIC UTILITIES – TACOMA WATER

Date 2–9–65 | Project MISC | W.O.
Design FMK
Drawn ___
Digitize SRD
Check ___
K. F. Olson
MANAGER

STANDARD BREATHER PIPE FOR CHAMBERS

SCALE VARIES
DRAWING 663–A



NOTES

1. ENTIRE LADDER, INCLUDING CLIPS TO BE HOT DIP GALVANIZED AFTER FABRICATION.
2. ADDITIONAL SUPPORT CLIPS REQUIRED TO LIMIT UNSUPPORTED SPAN TO 8' OR LESS.

STANDARD VERTICAL LADDER FOR VALVE CHAMBERS — 935–B

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02/08/2024

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2				
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REFERENCE

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TACOMA WATER
TACOMA PUBLIC UTILITIES

CITY OF TACOMA
DEPARTMENT OF PUBLIC UTILITIES
WATER DIVISION

MAIN REPLACEMENT PROJECT 2021–16
DETAILS FOR
E 64TH ST – PHASE 2

DATE 05/20
DESIGNED TAS
DRAWN RJE
CHECKED TAS

APPROVED DocuSigned by: Ali Pelda
PLANNING & ENGINEERING DIVISION

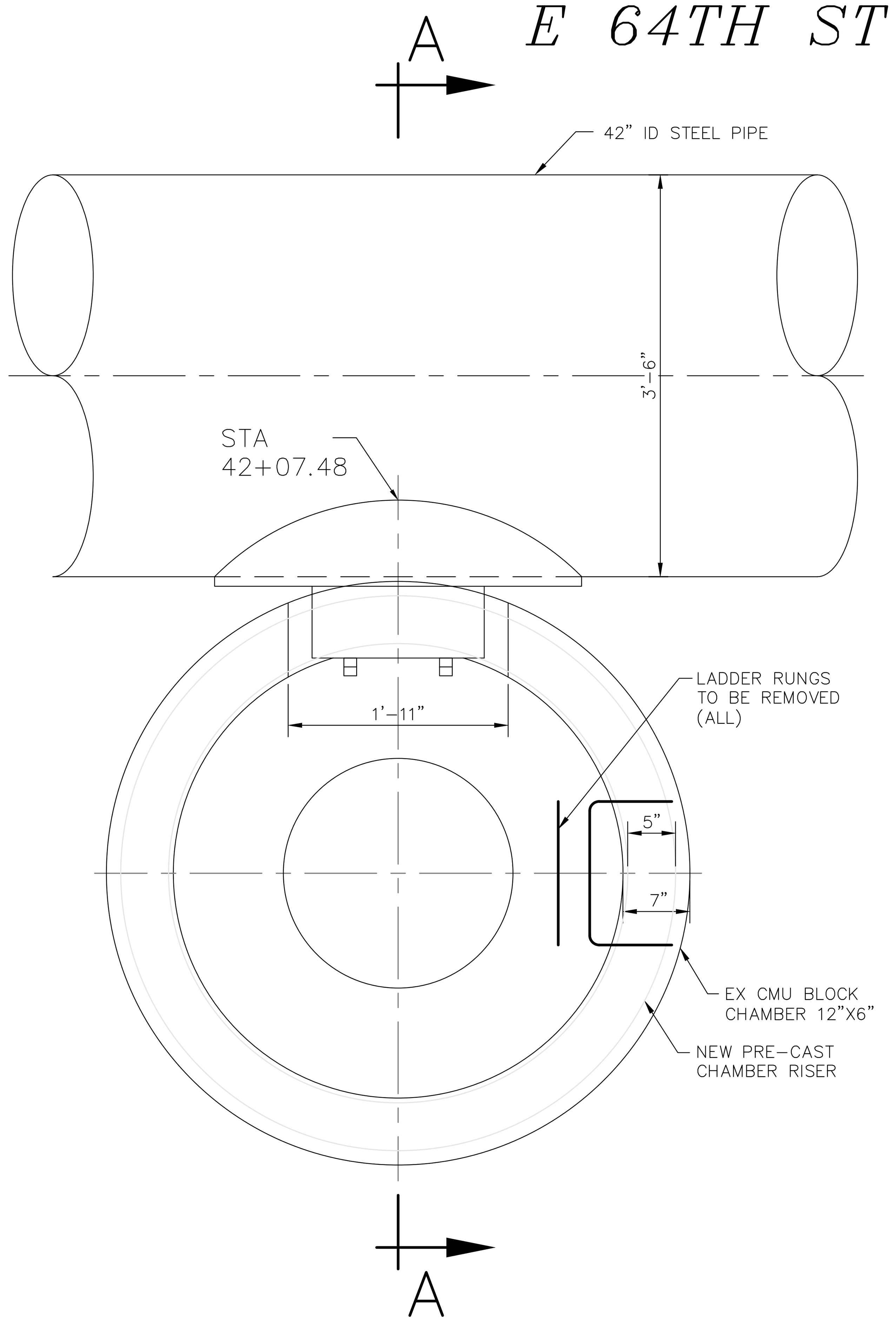
SCALE
HORIZ: NTS
VERT: NTS

DRAWING NO 2021–16

WBS # WTR–00641–03 | SURVEYING | ENGINEERING WTR–00641–03–01 | INSPECTION

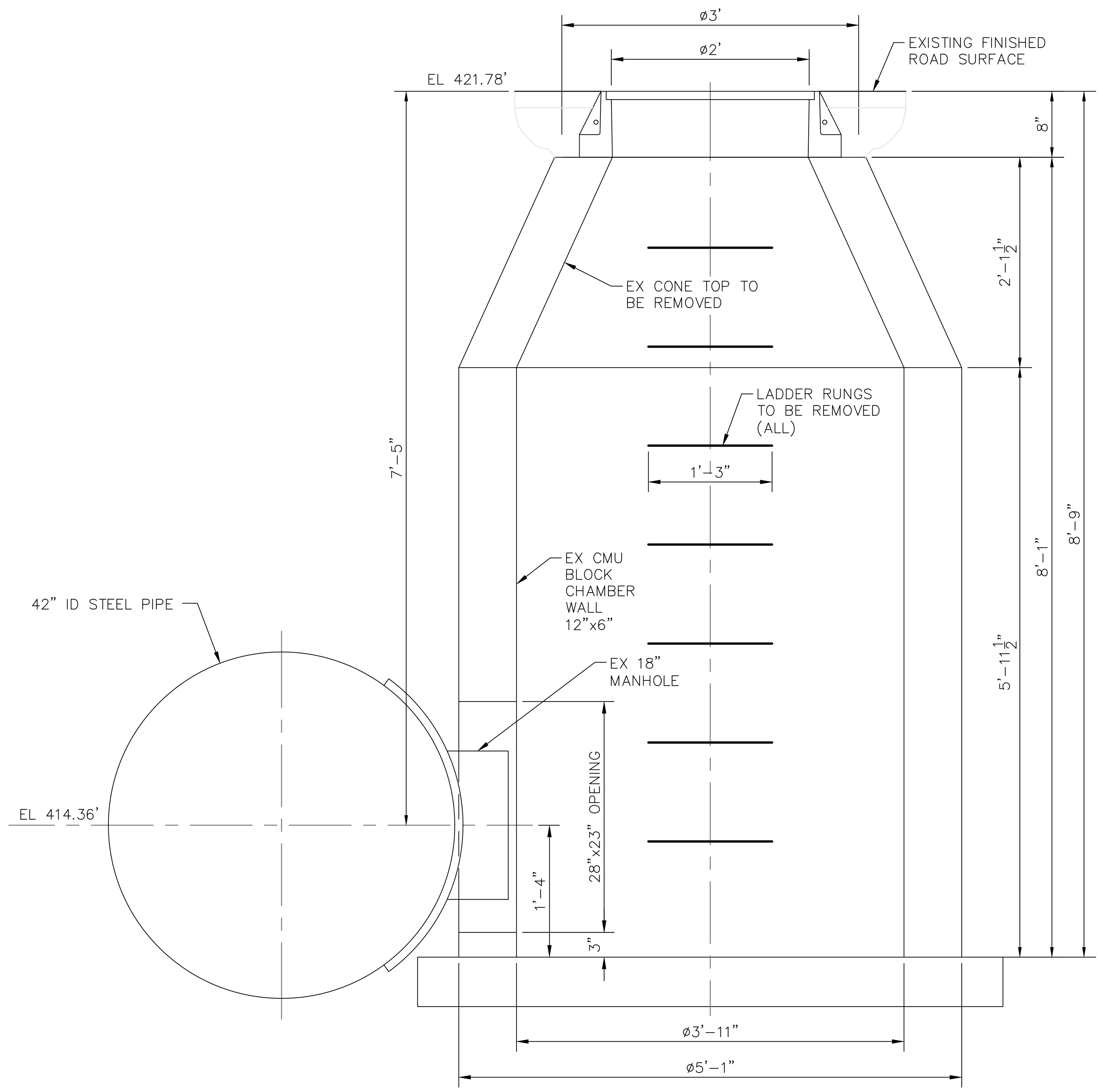
SHEET 10 OF 13

DETAILS



PLAN

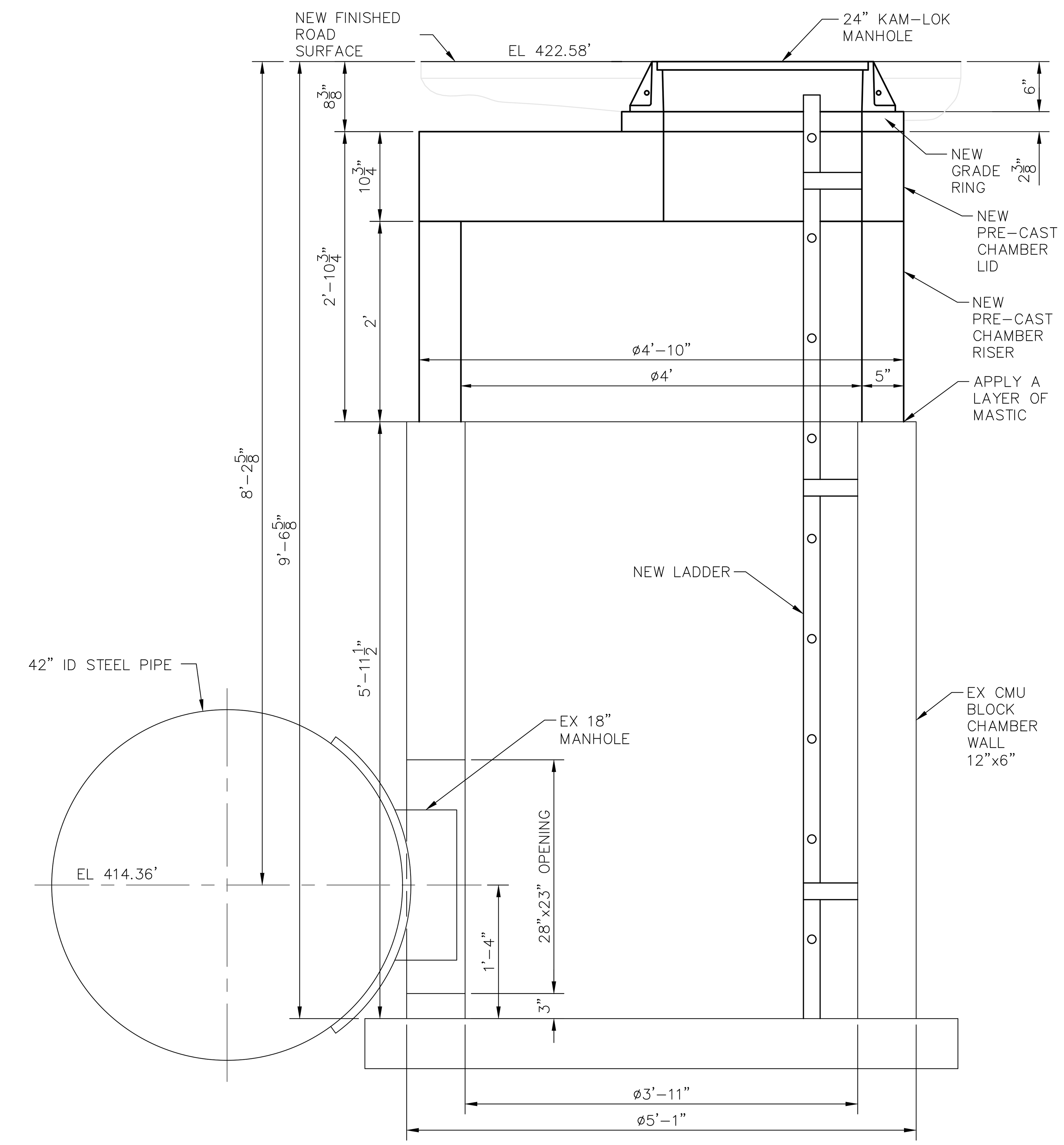
1" = 1'-0"



EXISTING CHAMBER

SECTION A–A

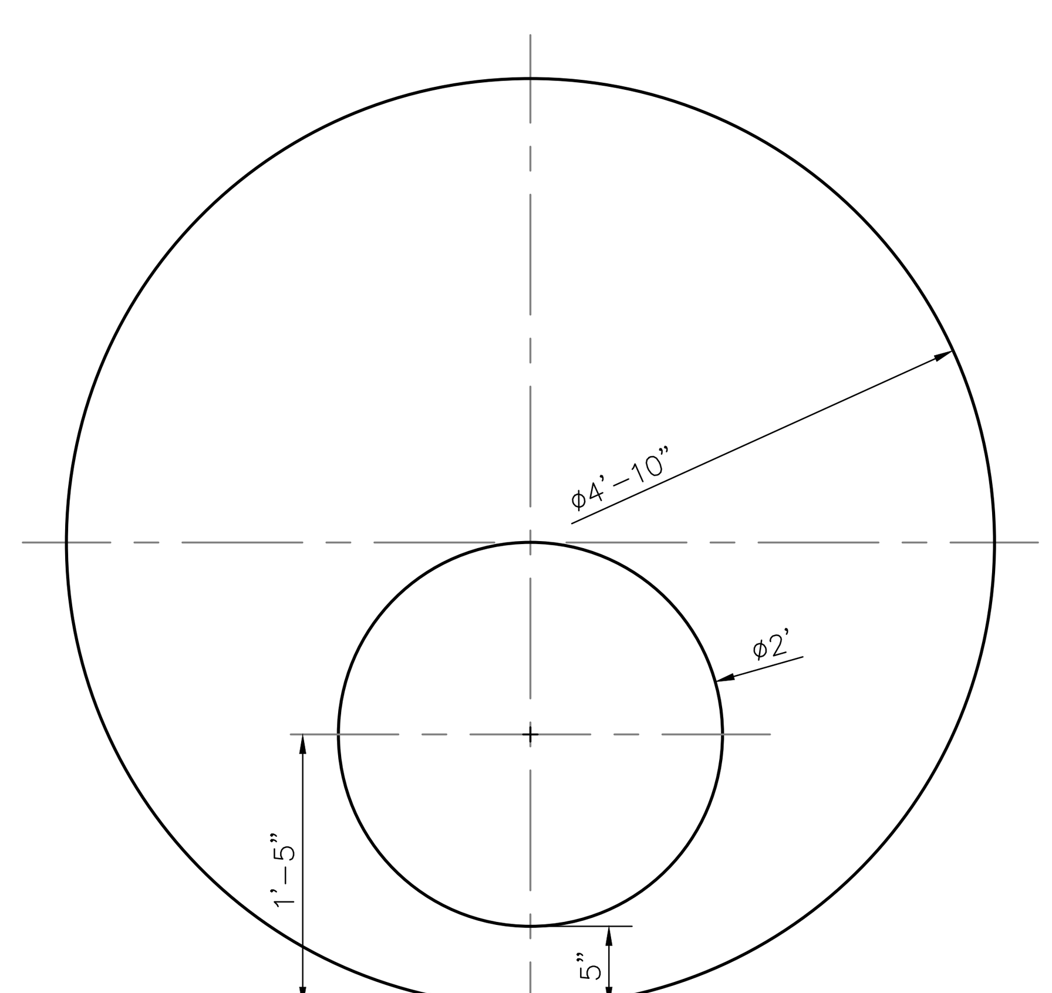
1" = 1'-0"



MODIFIED CHAMBER

SECTION A–A

1" = 1'-0"



NEW CHAMBER LID CORE LOCATION

PLAN

1" = 1'-0"

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55625
REGISTERED
PROFESSIONAL ENGINEER
02/08/2024

NO	REVISION	DATE	BY	APP'D
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TACOMA WATER
TACOMA PUBLIC UTILITIES

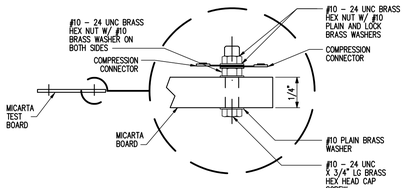
CITY OF TACOMA
DEPARTMENT OF PUBLIC UTILITIES
WATER DIVISION

MAIN REPLACEMENT PROJECT 2021–16
DETAILS FOR
E 64TH ST – PHASE 2

DATE 05/20	APPROVED (DocuSigned by: Ali Polda)	SCALE HORIZ: NTS VERT: NTS
DESIGNED TAS	PLANNING & ENGINEERING DIVISION	DRAWING NO
DRAWN RJE		2021–16
CHECKED TAS		

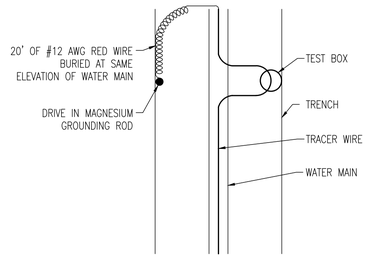
FIELD BOOK	MAP NO. 203/87, 203/106	BLUE BOOK 28	WBS # WTR–00641–03	SURVEYING	ENGINEERING WTR–00641–03–01	INSPECTION	SHEET 11 OF 13

DETAILS



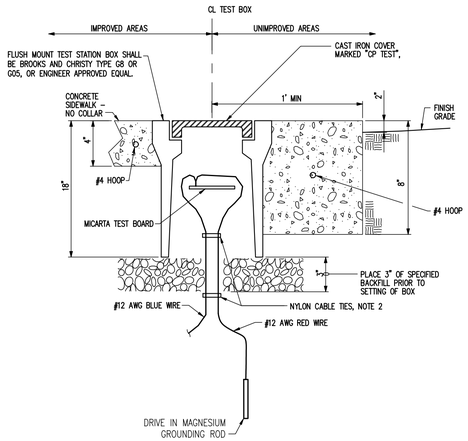
TYPICAL TEST BOARD DETAIL

NOT TO SCALE

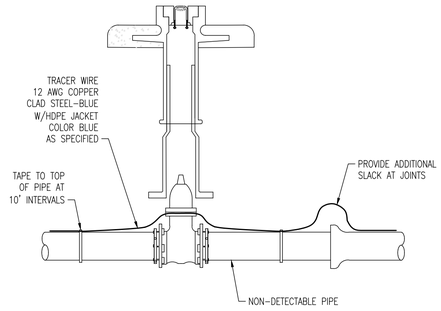


MAGNESIUM GROUNDING ROD INSTALLATION DETAIL

NOT TO SCALE

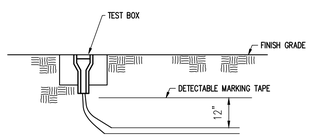


TEST BOX SECTION



TRACER WIRE DETAIL

NOT TO SCALE



LOCATION ELEVATION

NOTES:

1. ALL LEADS SHALL BE RUN WITHOUT SPLICES FROM THE CONNECTION TO THE TEST STATION BOX.
2. ALL LEADS INSIDE THE TEST BOX SHALL BE BUNDLED TOGETHER AT 8" INTERVALS WITH NYLON CABLE TIES. ALL TEST LEADS SHALL BE PROVIDED WITH SUFFICIENT SLACK SO THAT THE BOARD MAY BE EXTENDED 1.5 FEET ABOVE THE TOP OF THE TEST BOX.
3. PROVIDE SUFFICIENT SLACK IN WIRES TO PREVENT DAMAGE DURING THE BACKFILL OPERATION.
4. FIELD LOCATE TEST BOX LOCATION WITH TACOMA WATER INSPECTOR.
5. CONTRACTOR TO TEST AND VERIFY CONTINUITY OF CONNECTIONS PRIOR TO TACOMA WATER INSPECTION.

TYPICAL TEST BOX NOT TO SCALE

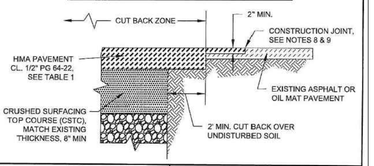
STA 14+79, STA 19+41, STA 23+99
STA 28+66, STA 38+10, STA 41+62

NOTES

1. **All pavement restoration work shall also meet the requirements of the City of Tacoma's Right of Way Restoration Policy. See Standard Plan SU-15B for any streets exempt from this policy.**
2. Temporary Surface Restoration:
   Arterials, industrial areas and/or roads with bus traffic: Temporary patches shall be compacted and leveled to a minimum of 3-inches of hot-mix asphalt (HMA).
   Residentials and alleys: Temporary patches shall be compacted and leveled to a minimum of 2-inches of either HMA or cold-mix asphalt. Temporary patches between October 1st and March 31st shall be made with HMA unless otherwise approved.
3. All permanent final patches shall be rectangular in shape and constructed parallel and perpendicular to the road centerline.
4. Where existing pavement defects are in close proximity to the new cut, the inspector may require additional pavement removal to eliminate the pavement defect.
5. The final cut edge of paved surfaces shall be smooth and straight, consistent with grinding or saw cutting devices. No jagged, broken or undermined edges are allowed. Cutting wheel run-out beyond the limits of the opening shall be filled in accordance with WSDOT Standard Specification 5-05.3(8)B for cement concrete surfaces and 5-04.3(5)C for asphalt concrete surfaces.
6. Final compaction of HMA shall be 91% of maximum density.
   Isolated patches: Minimum 1 test per patch up to 150 square feet, and 1 test required every additional 300 square feet, thereafter.
   Trench patches: 1 test every 150 linear feet of trench with a minimum of 2 tests per trench.
   Testing shall be performed by a certified independent testing laboratory or certified testor, as approved by the City's Construction Division. Tests shall be completed and reports identifying the project number submitted to the City Construction Division within 48 hours of test.
7. All joints between the new and original asphalt pavement shall be sealed with hot asphalt or asphalt emulsion and covered with dry paving sand before the asphalt solidifies. Existing surfaces shall be prepared in accordance with WSDOT Standard Specification 5-04.3(5)A prior to placing any new pavement surfaces.
8. Longitudinal construction joints shall only be located at the center or edge of affected lanes.
   Streets and courts 20 feet or less in width and all alleys are considered one-lane streets. Non-arterial streets and courts greater than 20 feet in width with no traffic channelization are considered two-lane streets with one-lane either side of the centerline of the street.
   Non-arterial streets greater than 32 feet in width with no traffic channelization may be considered three lane streets upon prior approval from the City Engineer.
9. Transverse construction joints terminate at the edge of the 2' cut back.
10. HMA pavement shall not be placed over CDF until approved by the City.

TABLE 1
PAVEMENT REPLACEMENT DEPTH IN CUT BACK ZONE

	MIN.	MAX.
ARTERIALS, INDUSTRIAL AREAS & ROADS WITH BUS TRAFFIC	MATCH EXISTING +1", OR 4", WHICHEVER IS GREATER	6"
RESIDENTIALS AND ALLEYS	MATCH EXISTING +1", OR 3", WHICHEVER IS GREATER	4"



CITY OF TACOMA DEPARTMENT OF PUBLIC WORKS	APPROVED FOR PUBLICATION — CITY ENGINEER — DATE 12 JAN 2009	TYPICAL PAVEMENT RESTORATION FOR ASPHALT CONCRETE/OIL MAT PAVEMENT — STANDARD PLAN NO. SU-15A

NOTES

1. **This Standard Plan shall only apply to streets that are exempt from the City of Tacoma's Restoration Policy. See Standard Plan SU-15A for any streets not exempt from this policy.**
2. Temporary Surface Restoration:
   Arterials, industrial areas and/or roads with bus traffic: Temporary patches shall be compacted and leveled to a minimum of 3-inches of hot-mix asphalt (HMA).
   Residentials and alleys: Temporary patches shall be compacted and leveled to a minimum of 2-inches of either HMA or cold-mix asphalt. Temporary patches between October 1st and March 31st shall be made with HMA unless otherwise approved.
3. All permanent final patches shall be rectangular in shape and constructed parallel and perpendicular to the road centerline.
4. Where existing pavement defects are in close proximity to the new cut, the inspector may require additional pavement removal to eliminate the pavement defect.
5. The final cut edge of paved surfaces shall be smooth and straight, consistent with grinding or saw cutting devices. No jagged, broken or undermined edges are allowed. Cutting wheel run-out beyond the limits of the opening shall be filled in accordance with WSDOT Standard Specification 5-05.3(8)B for cement concrete surfaces and 5-04.3(5)C for asphalt concrete surfaces.
6. Final compaction of HMA shall be 91% of maximum density.
   Testing shall be performed by a certified independent testing laboratory or certified testor, as approved by the City's Construction Division. Tests shall be completed and reports identifying the project number submitted to the City Construction Division within 48 hours of test.
7. All joints between the new and original asphalt pavement shall be sealed with hot asphalt or asphalt emulsion and covered with dry paving sand before the asphalt solidifies. Existing surfaces shall be prepared in accordance with WSDOT Standard Specification 5-04.3(5)A prior to placing any new pavement surfaces.
8. HMA pavement shall not be placed over CDF until approved by the City.
9. If remaining pavement adjacent to the patch is less than 3' wide, remove and replace with asphalt concrete pavement to match existing (minimum 2").

TABLE 1
PAVEMENT REPLACEMENT DEPTH IN CUT BACK ZONE

	MIN.	MAX.
ARTERIALS, INDUSTRIAL AREAS & ROADS WITH BUS TRAFFIC	MATCH EXISTING +1", OR 4", WHICHEVER IS GREATER	6"
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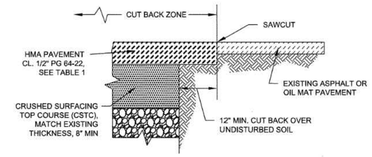

CITY OF TACOMA DEPARTMENT OF PUBLIC WORKS	APPROVED FOR PUBLICATION — CITY ENGINEER — DATE 7/17/09	TYPICAL PAVEMENT RESTORATION FOR ASPHALT CONCRETE/OIL MAT PAVEMENT — STANDARD PLAN NO. SU-15B

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TROY A. SAGHAFI — STATE OF WASHINGTON — DocuSigned by: — 43501 — 11488 — 55625 — REGISTERED PROFESSIONAL ENGINEER

02/08/2024

NO	REVISION	DATE	BY	APP'D
3				
2				
1				

REFERENCE

FIELD BOOK | MAP NO. 203/87, 203/106 | BLUE BOOK 28

TACOMA WATER — TACOMA PUBLIC UTILITIES

CITY OF TACOMA
DEPARTMENT OF PUBLIC UTILITIES
WATER DIVISION

MAIN REPLACEMENT PROJECT 2021-16
DETAILS FOR
E 64TH ST - PHASE 2

DATE 05/20
DESIGNED TAS
DRAWN RJE
CHECKED TAS

APPROVED DocuSigned by: Ali Pelda
PLANNING & ENGINEERING DIVISION

SCALE HORIZ: NTS VERT: NTS

DRAWING NO 2021-16

WBS # WTR-00641-03 | SURVEYING | ENGINEERING WTR-00641-03-01 | INSPECTION

SHEET 12 OF 13

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TROY A. SAGHAFI — STATE OF WASHINGTON — 55625 REGISTERED PROFESSIONAL ENGINEER

DocuSigned by: Troy Saghafi

02/08/2024

NO	REVISION	DATE	BY	APP'D
3				
2				
1				

REFERENCE

FIELD BOOK	MAP NO. 203/87, 203/106	BLUE BOOK 28

TACOMA WATER
TACOMA PUBLIC UTILITIES

CITY OF TACOMA
DEPARTMENT OF PUBLIC UTILITIES
WATER DIVISION

MAIN REPLACEMENT PROJECT 2021-16
SURVEY CONTROL FOR
E 64TH ST - PHASE 2

DATE	05/20
DESIGNED	TAS
DRAWN	RJE
CHECKED	TAS

APPROVED — DocuSigned by: Ali Polda
PLANNING & ENGINEERING DIVISION

SCALE
HORIZ: 1"=50'
VERT: N/A

DRAWING NO
2021-16

WBS #	SURVEYING	ENGINEERING	INSPECTION
WTR-00641-03		WTR-00641-03-01	

SHEET 13 OF 13