

BID PACKAGE 3: HAVERHILL ELEMENTARY PLAYGROUND RELOCATION AND EARLY SITE PACKAGE

PORTAGE PUBLIC SCHOOLS

Portage, Michigan

CONSTRUCTION DOCUMENTS

DESIGN TEAM

ARCHITECT/ENGINEER

TowerPinkster
Architecture · Engineering · Interiors

242 E. KALAMAZOO AVE, SUITE 100
KALAMAZOO, MICHIGAN 49007
PHONE: 269.343.6133
FAX: 269.343.6633

STRUCTURAL ENGINEER

**Thornton
Tomasetti**

330 NORTH WABASH, SUITE 1500
CHICAGO, ILLINOIS 60611-7622
PHONE: 312.596.2000
FAX: 312.596.2001

CIVIL CONSULTANT

HS
hurley & stewart

2800 SOUTH 11TH STREET
KALAMAZOO, MICHIGAN 49009
PHONE: 269.552.4960

FOOD SERVICE CONSULTANT

JRA
Food Service
Consultants, LLC

401 HALL STREET SW #234
GRAND RAPIDS, MICHIGAN 49503
PHONE: 616.454.4433

DESIGN PARTNER

f Fielding
International

460 HILTON ROAD
FERNDALE, MICHIGAN 48220
PHONE: 248.703.3681

CONSTRUCTION MANAGER

**Owen
Ames
Kimball**

161 EAST MICHIGAN AVENUE,
SUITE 102
KALAMAZOO, MICHIGAN 49007
PHONE: 269.276.9700

SITE ADDRESS

PORTAGE PUBLIC SCHOOLS
HAVERHILL ELEMENTARY SCHOOL
6633 HAVERHILL AVENUE
PORTAGE, MICHIGAN 49024

REFERENCED CODES

BUILDING: 2015 MICHIGAN BUILDING CODE AND 2012 NFPA 101 LIFE SAFETY CODE
ENERGY: 2015 MICHIGAN ENERGY CODE
PLUMBING: 2018 MICHIGAN PLUMBING CODE
MECHANICAL: 2015 MICHIGAN MECHANICAL CODE
FUEL GAS: (IFGC) 2015 INTERNATIONAL FUEL GAS CODE
ELECTRICAL: 2017 NATIONAL ELECTRICAL CODE WITH MICHIGAN AMENDMENTS
BARRIER-FREE: 2015 MICHIGAN BUILDING CODE AND 2009 ICC & C A117.1
USE GROUP: E
CONSTRUCTION TYPE: IIB
AUTOMATIC SPRINKLERS: FULLY SPRINKLED

PROJECT AREA

TOTAL FINISHED PROJECT: 77,519 SQ. FT.

DRAWING INDEX

GENERAL
G 001 COVER SHEET

TOPOGRAPHIC SURVEY
TS 101 TOPOGRAPHIC SURVEY

CIVIL DEMOLITION
CD 101 SITE DEMOLITION PLAN - EAST
CD 102 SITE DEMOLITION PLAN - WEST

CIVIL NEW CONSTRUCTION
C 200 SITE LAYOUT PLAN
C 300 SITE GRADING PLAN
C 301 SITE SESC PLAN
C 302 SITE SESC NOTES & SCHEDULE
C 402 SITE UTILITY PLAN
C 403 SITE WATER MAIN PROFILE
C 500 SANITARY DETAILS
C 501 WATER MAIN DETAILS
C 503 SITE DETAILS
C 504 UTILITY DETAILS

LANDSCAPE
L 001 TREE PROTECTION PLAN
L 101 PLAY EQUIPMENT RELOCATION PLAN

ISSUED FOR DATE

PROJECT TITLE
BID PACKAGE 3: HAVERHILL ELEMENTARY
PLAYGROUND RELOCATION AND EARLY
SITE PACKAGE

OWNER
PORTAGE PUBLIC SCHOOLS

Portage, Michigan

DATE
DECEMBER 16, 2022

SHEET TITLE
COVER SHEET

SHEET NUMBER
G 001
21-237.22

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TOPOGRAPHIC / BOUNDARY SURVEY

BENCHMARK DATA

NAVD 88 AS DERIVED FROM GPS OBSERVATIONS UTILIZING VRS CONUS 18
 BM #1 EL= 904.86' (NAVD 88)
 MAG NAIL IN TOP OF 6"X4" WOOD POST, LOCATED 10' EAST OF NORTHEAST CORNER OF HAVERRILL ELEMENTARY SCHOOL, & 85' SOUTHWEST OF NORTHEAST CORNER OF PARKING LOT.
 BM #2 EL= 900.73' (NAVD 88)
 FLANGE BOLT UNDER 1" ON HYDRANT, LOCATED 26' EAST OF CENTERLINE OF BUCKHORN STREET & 26' SOUTH OF CENTERLINE OF COULTER AVENUE.
 BM #3 EL= 905.01' (NAVD 88)
 FLANGE BOLT UNDER 1" ON HYDRANT, LOCATED 84' NORTHWEST OF HAVERRILL ELEMENTARY SIGN & 25' NORTH OF CENTERLINE OF HAMPTON STREET.

SURVEY CONTROL

POINT NUMBER	NORTHING (ASSUMED)	EASTING (ASSUMED)	ELEVATION (NAVD 88)
50	9281.8337	9736.4372	902.27
52	9313.0848	10123.4658	903.97
53	9190.2857	10114.7851	902.19
54	8956.2189	10123.3502	901.66
55	8820.7074	9963.6887	902.95
56	8863.3052	9810.5240	902.24
57	9104.9501	9738.4330	902.94

SCHEDULE "A" LEGAL DESCRIPTION

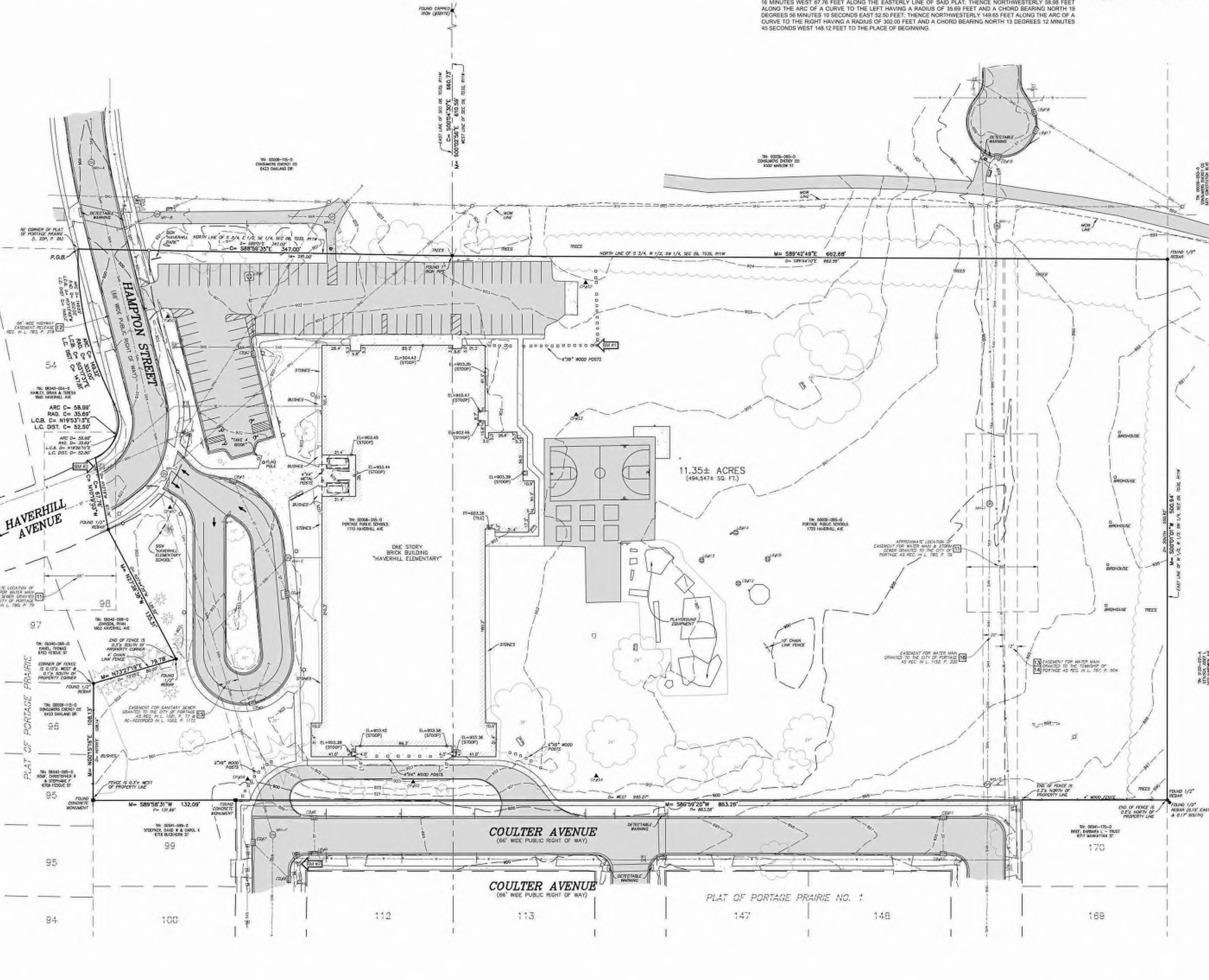
FROM: TRANSPORTATION TITLE AGENCY OF MICHIGAN
 FILE NO.: 384179LKS (EFFECTIVE DATE: APRIL 18, 2022)
 A PARCEL OF LAND LOCATED IN SECTIONS 8 AND 9 OF TOWN 3 SOUTH, RANGE 11 WEST, PORTAGE TOWNSHIP, KALAMAZOO COUNTY, MICHIGAN, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS BEGINNING AT THE NORTHEAST CORNER OF THE PLAT OF "PORTAGE PRAIRIE" AS RECORDED IN LIBER 25 OF PLATS, ON PAGE 26, IN THE OFFICE OF THE REGISTER OF DEEDS FOR KALAMAZOO COUNTY, MICHIGAN; THENCE SOUTH 89 DEGREES 01 DEGREES EAST 347.00 FEET ALONG THE NORTH LINE OF THE SOUTH 3/4 OF THE EAST 1/2 OF THE SOUTHWEST 1/4 OF SAID SECTION 8 TO THE EAST LINE OF SAID SECTION 8; THENCE SOUTH 89 DEGREES 44 MINUTES 10 SECONDS EAST 602.36 FEET ALONG THE NORTH LINE OF THE SOUTH 3/4 OF THE WEST 1/2 OF THE SOUTHWEST 1/4 OF SAID SECTION 9 TO THE EAST LINE OF THE WEST 1/2 OF THE WEST 1/2 OF THE SOUTHWEST 1/4 OF SAID SECTION 9; THENCE SOUTH 80.82 FEET ALONG SAID EAST LINE OF THE WEST 1/2 OF THE SOUTHWEST 1/4 OF SAID SECTION 9; THENCE WEST 95.27 FEET TO THE EASTERLY LINE OF SAID PLAT OF PORTAGE PRAIRIE; THENCE NORTH 0 DEGREES 00 MINUTES EAST 108.14 FEET ALONG THE EASTERLY LINE OF SAID PLAT; THENCE NORTH 73 DEGREES 35 MINUTES EAST 90.00 FEET ALONG THE EASTERLY LINE OF SAID PLAT; THENCE NORTH 10 DEGREES 44 MINUTES 35 SECONDS WEST 135.52 FEET ALONG THE EASTERLY LINE OF SAID PLAT; THENCE NORTH 10 DEGREES 16 MINUTES WEST 87.76 FEET ALONG THE EASTERLY LINE OF SAID PLAT; THENCE NORTHWESTERLY 58.98 FEET ALONG THE ARC OF A CURVE TO THE LEFT HAVING A RADIUS OF 35.69 FEET AND A CHORD BEARING NORTH 19 DEGREES 56 MINUTES 10 SECONDS EAST 32.50 FEET; THENCE NORTHWESTERLY 149.65 FEET ALONG THE ARC OF A CURVE TO THE RIGHT HAVING A RADIUS OF 302.00 FEET AND A CHORD BEARING NORTH 13 DEGREES 12 MINUTES 45 SECONDS WEST 148.12 FEET TO THE PLACE OF BEGINNING.

SCHEDULE B-I MATTERS CONCERNING THE PROPERTY

- FROM: TRANSPORTATION TITLE AGENCY OF MICHIGAN
 FILE NO.: 384179LKS (EFFECTIVE DATE: APRIL 18, 2022)
- 11 EASEMENTS WHICH ARE RECITED IN INSTRUMENT RECORDED IN LIBER 780, PAGE 78, (SHOWN ON DRAWING)
 - 12 HIGHWAY EASEMENT RELEASE AS RECORDED IN LIBER 783, PAGE 378, (SHOWN ON DRAWING)
 - 13 WATER MAIN EASEMENT AS RECORDED IN LIBER 787, PAGE 504, (SHOWN ON DRAWING)
 - 14 GENERAL EASEMENT AND RIGHT OF WAY GRANT AS RECORDED IN LIBER 787, PAGE 504, (SHOWN ON DRAWING)
 - 15 GENERAL EASEMENT AND RIGHT OF WAY GRANT AS RECORDED IN LIBER 1021, PAGE 77, RE-RECORDED IN LIBER 1062, PAGE 1173, (SHOWN ON DRAWING)
 - 16 EASEMENT AGREEMENT AS RECORDED IN LIBER 1152, PAGE 220, (SHOWN ON DRAWING)



DRIESENKA & ASSOCIATES, INC.
 Engineering
 Surveying
 Testing
 www.driesenka.com
 Holland, MI
 616-296-0255
 Grand Rapids, MI
 616-249-3500
 Kalamazoo, MI
 269-544-1455
 Lansing, MI
 517-899-6210
 Ypsilanti, MI
 734-368-9483



STORM STRUCTURE DATA

- LB11 - 6" CONCRETE
 RIM 900.32
 INV (S) 12" CONC=895.36
 SUMP=891.51
- CB22 - 4" CONCRETE
 RIM 901.18
 INV (N) 12" CONC=897.28
 SUMP=893.13
- CB45 - 4" CONCRETE
 RIM 901.92
 INV (SE) 12" CONC=895.47
 SUMP=893.72
- CB44 - 6" CONCRETE
 RIM 901.32
 INV (SE) 18" CONC=895.07
 INV (S) 12" CONC=895.32
 SUMP=894.82
- CB45 - 2" BLOCK
 RIM 900.86
 INV (SW) 8" PVC=895.31
 SUMP=894.11
- CB46 - 2" BLOCK
 RIM 898.52
 INV (S) 12" CONC=895.22
 SUMP=895.07
- CB47 - 2" BLOCK
 RIM 898.10
 INV (N) 12" CONC=894.85
 SUMP=894.70
- CB48 - 4" CONCRETE
 RIM 898.31
 INV (N) 12" CONC=894.71
 SUMP=894.51
- LB49 - 4" CONCRETE
 RIM 898.42
 INV (N) 12" CONC=844.82
 SUMP=844.62
- CB10 - 4" CONCRETE
 RIM 895.58
 INV (N) 12" CONC=892.03
 SUMP=891.88
- CB11 - 2" CONCRETE
 RIM 895.43
 INV (S) 12" CONC=892.63
 SUMP=892.45
- LB12 - 6" CONCRETE
 RIM 900.04
 (NO PIPES VISIBLE)
 SUMP=894.24
- LB13 - 6" CONCRETE
 RIM 900.14
 (NO PIPES VISIBLE)
 TOP OF WATER=892.44
 SUMP=891.44
- LB14 - 6" CONCRETE
 RIM 900.13
 (NO PIPES VISIBLE)
 TOP OF WATER=895.63
 SUMP=895.63
- LB15 - 6" CONCRETE
 RIM 900.39
 (NO PIPES VISIBLE)
 SUMP=893.56
- CB18 - 4" CONCRETE
 RIM 897.96
 INV (NE) 8" CONC=893.69
 SUMP=893.56
- LB17 - 6" CONCRETE
 RIM 898.36
 INV (SW) 12" CONC=893.76
 INV (N) 12" CONC=893.48
 SUMP=891.56
- LB18 - 4" CONCRETE
 RIM 898.27
 INV (S) 12" CONC=894.67
 SUMP=890.02
- MB19 - 6" CONCRETE
 RIM 903.23
 INV (S) 12" PVC=891.63
 SUMP=891.63

SANITARY STRUCTURE DATA

- MB1A
 RIM 900.32
 INV (N) 12" CONC=895.72
 INV (S) 12" CONC=895.57
- MB1B - 6" CONCRETE
 RIM 901.60
 INV (WSW) 8" PVC=892.30
 INV (NE) 8" PVC=892.30
- MB1C - 6" CONCRETE
 RIM 901.26
 INV (W) 8" PVC=895.43
 INV (NE) 8" PVC=895.46
- MB1D - 4" CONCRETE
 RIM 902.86
 INV (N) 12" CONC=895.48
 INV (S) 12" CONC=895.53
- MB1E - 2" CONCRETE
 RIM 901.59
 INV (E) 8" PVC=898.49
 INV (SW) 8" PVC=898.49
- MB1F - 6" CONCRETE
 RIM 901.60
 INV (S) 12" PVC=884.08
 INV (N) 12" PVC=884.18
- MB1G - 4" CONCRETE
 RIM 898.58
 INV (S) 12" CONC=880.37
 INV (N) 8" CONC=880.42
- MB1H - 6" CONCRETE
 RIM 902.86
 INV (S) 12" PVC=883.11
 INV (N) 12" PVC=883.16
- MB1
 RIM 899.56
 INV (N) 12" PVC=881.01
 INV (S) 12" PVC=881.96
- MB2
 RIM 898.48
 INV (N) 12" PVC=881.63
 INV (S) 12" PVC=881.58

LEGEND

- BENCHMARK
- SET CONCRETE MONUMENT
- WOODEN POST
- SET CAPED IRON #10#8
- FOUND IRON
- SET CHILLED "I"
- FOUND CHILLED "I"
- PLASTER
- DISCOVERED
- MEASURED
- RECORD
- STORM SEWER MANHOLE
- EXISTING STORM SEWER
- ROOF DRAIN
- SANITARY SEWER MANHOLE
- CLEANOUT
- WELL HEAD
- FIRE HYDRANT
- FIRE DEPARTMENT CONNECTION
- SPRINKLER CONTROL VALVE
- SPRINKLER HEAD
- VALVE (GAS & GAS)
- GAS METER
- UTILITY RISER
- UTILITY POLE
- LIGHT POLE
- GUY ANCHOR
- TRANSFORMER
- HAND-HOLE (ELECTRIC)
- ELECTRIC METER
- GROUND MOUNTED LIGHT
- IRON
- IRON BOLLARD
- ROLLERS POST
- POST
- UNDERGROUND COMMUNICATIONS LINE MARKER
- UNDERGROUND ELECTRIC LINE MARKER
- UNDERGROUND GAS LINE MARKER
- GATE
- FENCE LINE
- OVERHEAD UTILITIES
- UNDERGROUND ELECTRIC COMMUNICATIONS
- TELEPHONE
- FIBER OPTIC
- GAS LINE
- EXISTING WATER LINE
- EXISTING STORM SEWER
- EXISTING SANITARY SEWER
- BITUMINOUS SURFACE
- CONCRETE SURFACE
- GRAVEL SURFACE
- COMPANION TREE
- DECIDUOUS TREE
- ORNAMENTAL BUSH

MISS DIG INFORMATION

- MISS DIG SURVEY TICKET # 2022041203022 REV: 000
 (INCLUDES INFORMATION RECEIVED THROUGH 06-03-2022)
- AT&T TELEPHONE - 04/13/2022 (MAPS RECEIVED)
 - CHARTER COMMUNICATIONS CABLE TV - 04/15/2022 (MAPS RECEIVED)
 - CHARTER COMMUNICATIONS FIBER OPTICS - 04/15/2022 (MAPS RECEIVED)
 - CONSUMERS ENERGY ELECTRIC - 04/24/2022 (MAPS RECEIVED)
 - CONSUMERS ENERGY GAS - 04/21/2022 (E-MAIL RECEIVED - AWAITING ADDITIONAL INFORMATION)
 - PORTAGE FIBER OPTICS - 05/27/2022 (MAPS RECEIVED)
 - PORTAGE CITY POTABLE WATER - 05/27/2022 (MAPS RECEIVED)
 - PORTAGE CITY SANITARY SEWER - 05/27/2022 (MAPS RECEIVED)
 - PORTAGE CITY STORM SEWER - 05/27/2022 (MAPS RECEIVED)
 - PORTAGE CITY TRAFFIC - 05/27/2022 (MAPS RECEIVED)
 - ZAYO BANDWIDTH/MIWEST, LLC FIBER OPTICS - 05/06/2022 (NO RESPONSE)



SURVEYOR'S NOTES

1. UTILITIES SHOWN ARE APPROXIMATE LOCATIONS DERIVED FROM ACTUAL FIELD MEASUREMENTS AND AVAILABLE RECORDS. THIS MAP IS NOT TO BE INTERPRETED AS SHOWING EXACT LOCATIONS OR SHOWING ALL UTILITIES IN THE AREA.
2. NOTE TO CONTRACTORS: THREE WORKING DAYS BEFORE YOU DIG - CALL MISS DIG AT 811.
3. CONTOUR INTERVAL = 1 FOOT.
4. THE FIELD WORK WAS COMPLETED ON MAY 10, 2022.

Tax Parcel No.: 00008-355-0 & 00009-065-0



Alan E. Dahl
 Alan Edward Dahl
 PROFESSIONAL SURVEYOR
 P.S. No. 4001047948

REVISIONS

NO.	DATE	DESCRIPTION
1		

Drawn By: GLK
 Scale: NONE
 Date: 05-06-2022
 Project #: 2250251.5A
 Sheet Title:

TOPOGRAPHIC & BOUNDARY SURVEY
 Sheet #
V-101
 1 of 1

ISSUED FOR DATE

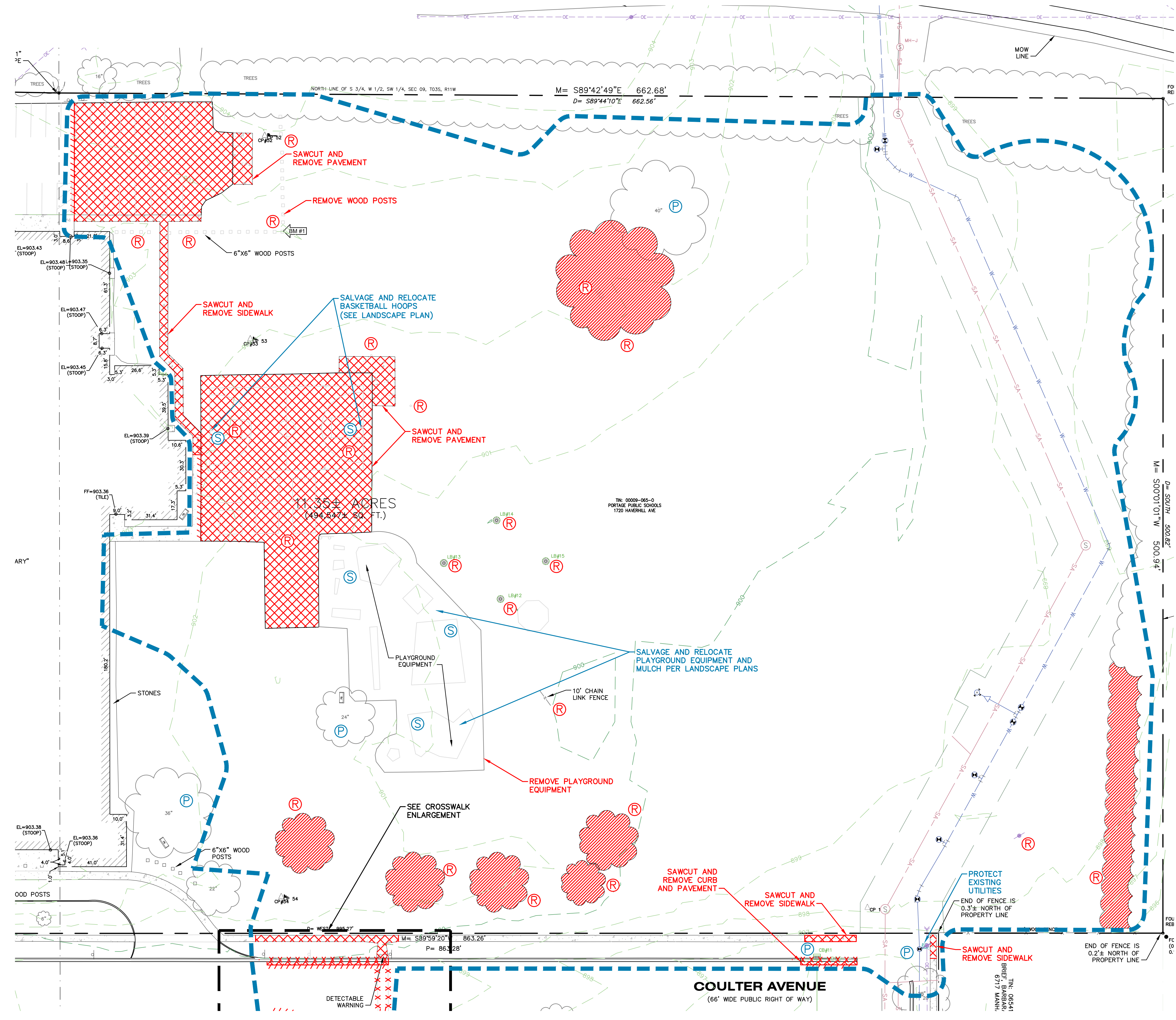
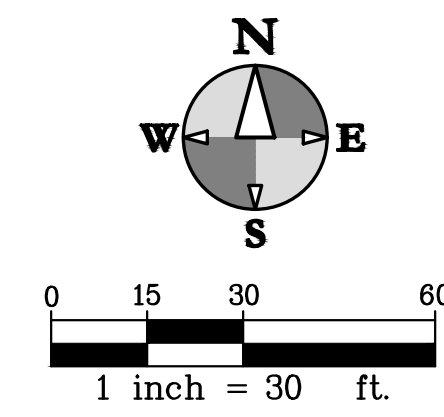
PROJECT TITLE
**BID PACKAGE 3: HAVERRILL ELEMENTARY
 PLAYGROUND RELOCATION AND EARLY
 SITE PACKAGE**

OWNER
PORTAGE PUBLIC SCHOOLS
 Portage, Michigan

SHEET TITLE
TOPOGRAPHIC SURVEY

DATE
DECEMBER 16, 2022

SHEET NUMBER
TS101
 21-237.22

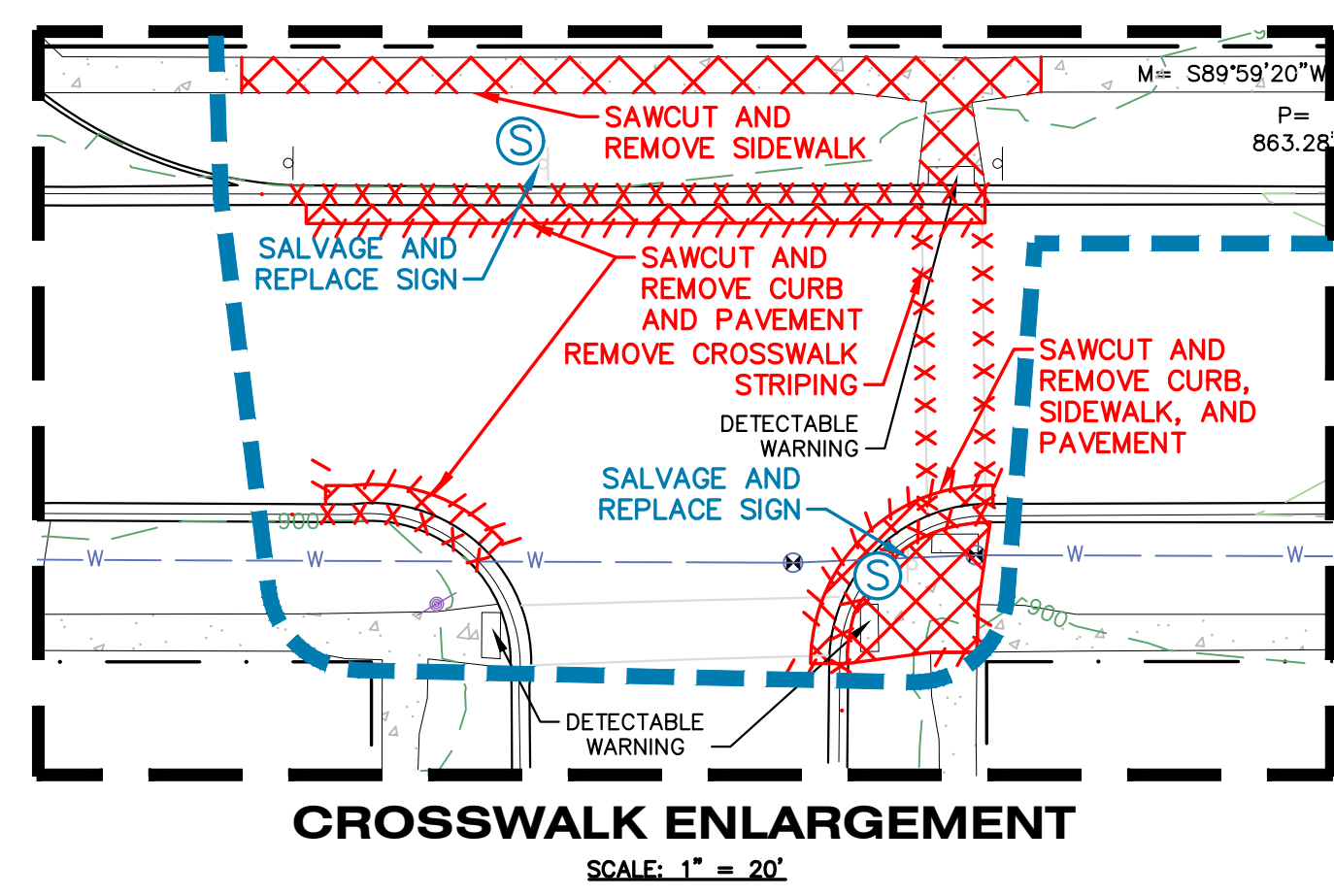


REMOVAL NOTES

1. REVIEW ALL THE REMOVALS AND PROTECTION WITH OWNER PRIOR TO COMMENCING CONSTRUCTION. INSTALL TEMPORARY SNOW FENCE AROUND ALL TREES REQUIRING PROTECTION. SNOW FENCE SHALL BE PLACED AT EDGE OF DRIP LINE.
2. ALL CURB AND GUTTER REMOVAL AND REPLACEMENT TO EXTEND TO EXISTING JOINT.
3. ALL REMOVALS SHALL BE TAKEN OFF-SITE AND DISPOSED.
4. COMPLY WITH ALL ASPECTS OF THE SOIL EROSION CONTROL PERMIT AS ISSUED BY CITY OF PORTAGE. ALL TEMPORARY CONTROL MEASURES SHALL BE IN PLACE PRIOR TO COMMENCING CONSTRUCTION.
5. ALL REMOVALS SHALL BE TO THE LIMITS INDICATED UNLESS OTHERWISE DIRECTED BY THE ENGINEER. UNAUTHORIZED REMOVALS AND SUBSEQUENT REPLACEMENT SHALL BE AT THE CONTRACTOR'S EXPENSE.
6. REMOVE, STORE, AND RESET ANY EXISTING SIGNS AS DIRECTED BY THE ENGINEER/OWNER.
7. REMOVE ALL TREES TO THE CLEARING LIMITS AS SHOWN. REMOVE ALL EXISTING TREES, STUMPS AND BRUSH FROM THE SITE AS NECESSARY TO CONSTRUCT THE IMPROVEMENTS.
8. NO BURNING, BURYING, OR HAULING OUT OF ANY DEBRIS PERMITTED.
9. ALL STUMPS SHALL BE REMOVED AT LEAST 1' BELOW FINISHED GRADE ELEVATION.
10. REVIEW CLEARING LIMITS WITH OWNER PRIOR TO COMMENCING WORK. PRESERVE TREES WHERE INDICATED.
11. IF ANY ERRORS, DISCREPANCIES, OR OMISSIONS BECOME APPARENT, THESE SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION OF ANYTHING AFFECTED SO THAT CLARIFICATION OR REDESIGN MAY OCCUR.
12. FOR PROTECTION OF UNDERGROUND UTILITIES, THE CONTRACTOR SHALL CALL 1-800-482-7171 A MINIMUM OF THREE FULL WORKING DAYS EXCLUDING SATURDAYS, SUNDAYS AND HOLIDAYS PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. MEMBERS WILL THUS BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.

REMOVALS LEGEND

- XXXXXX CURB REMOVAL
- ////// SAWCUT
- XXXXXX PAVEMENT/SIDEWALK REMOVAL
- (R) TREE REMOVAL
- (P) PROTECT
- (S) SALVAGE
- LIMITS OF CONSTRUCTION



ALL UTILITIES AS SHOWN ARE APPROXIMATE LOCATIONS DERIVED FROM ACTUAL MEASUREMENTS AND AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATION NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THE AREA.
 FIELD WORK PERFORMED BY:
 DRIESENKA & ASSOCIATES, LLC

ISSUED FOR DATE

PROJECT TITLE
 BID PACKAGE 3: HAVERHILL ELEMENTARY
 PLAYGROUND RELOCATION AND EARLY
 SITE PACKAGE

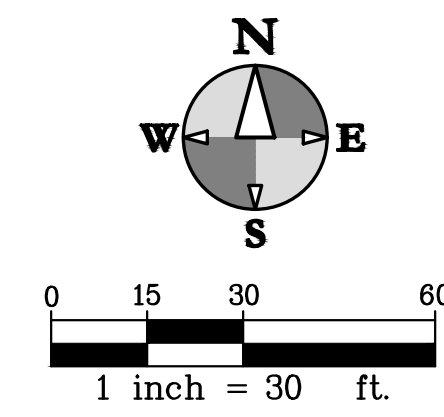
OWNER
 PORTAGE PUBLIC SCHOOLS

Portage, Michigan

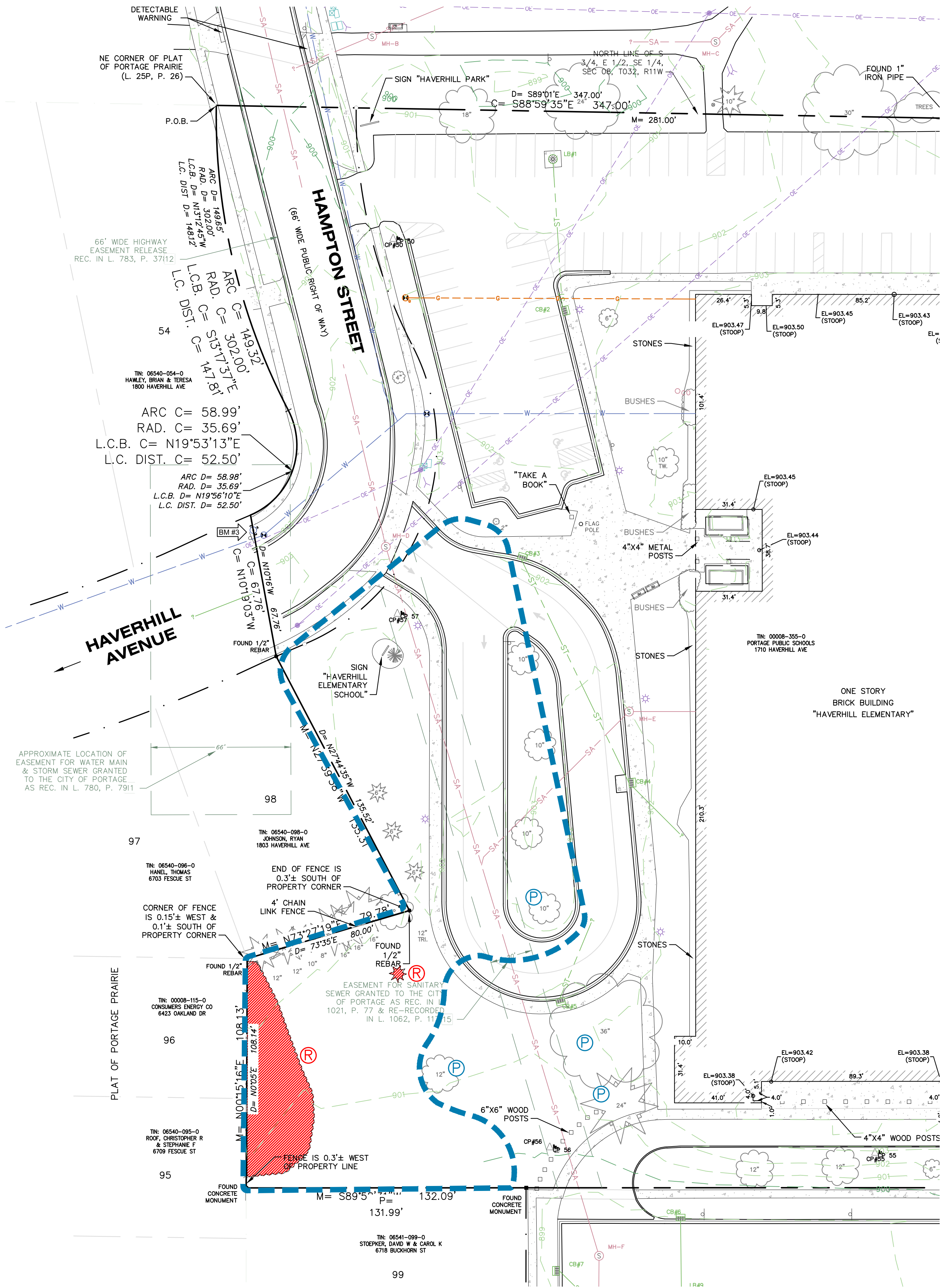
SHEET TITLE
 SITE DEMOLITION PLAN - EAST

DATE
 DECEMBER 16, 2022

SHEET NUMBER
 CD 101
 21-237.22



HS
hurley & stewart
 hurley & stewart, llc
 2800 s. 11th street
 kalamazoo, michigan 49009
 269.552.4960 fax 269.552.4961
 www.hurleystewart.com



REMOVAL NOTES

- REVIEW ALL THE REMOVALS AND PROTECTION WITH OWNER PRIOR TO COMMENCING CONSTRUCTION. INSTALL TEMPORARY SNOW FENCE AROUND ALL TREES REQUIRING PROTECTION. SNOW FENCE SHALL BE PLACED AT EDGE OF DRIP LINE.
- ALL CURB AND GUTTER REMOVAL AND REPLACEMENT TO EXTEND TO EXISTING JOINT.
- ALL REMOVALS SHALL BE TAKEN OFF-SITE AND DISPOSED.
- COMPLY WITH ALL ASPECTS OF THE SOIL EROSION CONTROL PERMIT AS ISSUED BY CITY OF PORTAGE. ALL TEMPORARY CONTROL MEASURES SHALL BE IN PLACE PRIOR TO COMMENCING CONSTRUCTION.
- ALL REMOVALS SHALL BE TO THE LIMITS INDICATED UNLESS OTHERWISE DIRECTED BY THE ENGINEER. UNAUTHORIZED REMOVALS AND SUBSEQUENT REPLACEMENT SHALL BE AT THE CONTRACTOR'S EXPENSE.
- REMOVE, STORE, AND RESET ANY EXISTING SIGNS AS DIRECTED BY THE ENGINEER/OWNER.
- REMOVE ALL TREES TO THE CLEARING LIMITS AS SHOWN. REMOVE ALL EXISTING TREES, STUMPS AND BRUSH FROM THE SITE AS NECESSARY TO CONSTRUCT THE IMPROVEMENTS.
- NO BURNING, BURYING, OR HAULING OUT OF ANY DEBRIS PERMITTED.
- ALL STUMPS SHALL BE REMOVED AT LEAST 1' BELOW FINISHED GRADE ELEVATION.
- REVIEW CLEARING LIMITS WITH OWNER PRIOR TO COMMENCING WORK. PRESERVE TREES WHERE INDICATED.
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REMOVALS LEGEND

- CURB REMOVAL
- SAWCUT
- PAVEMENT/SIDEWALK REMOVAL
- TREE REMOVAL
- REMOVE
- PROTECT
- SALVAGE
- LIMITS OF CONSTRUCTION

ISSUED FOR _____ DATE _____

PROJECT TITLE
**BID PACKAGE 3: HAVERHILL ELEMENTARY
 PLAYGROUND RELOCATION AND EARLY
 SITE PACKAGE**

OWNER
PORTAGE PUBLIC SCHOOLS

Portage, Michigan

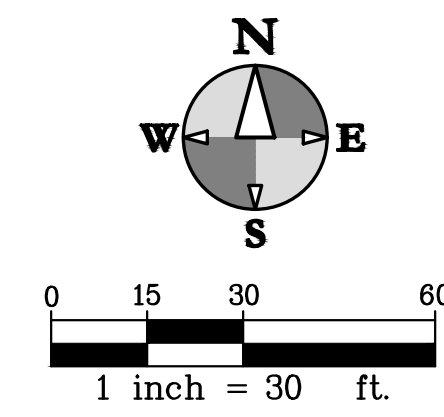
SHEET TITLE
SITE DEMOLITION PLAN - WEST

DATE
DECEMBER 16, 2022

SHEET NUMBER
CD 102
 21-237.22

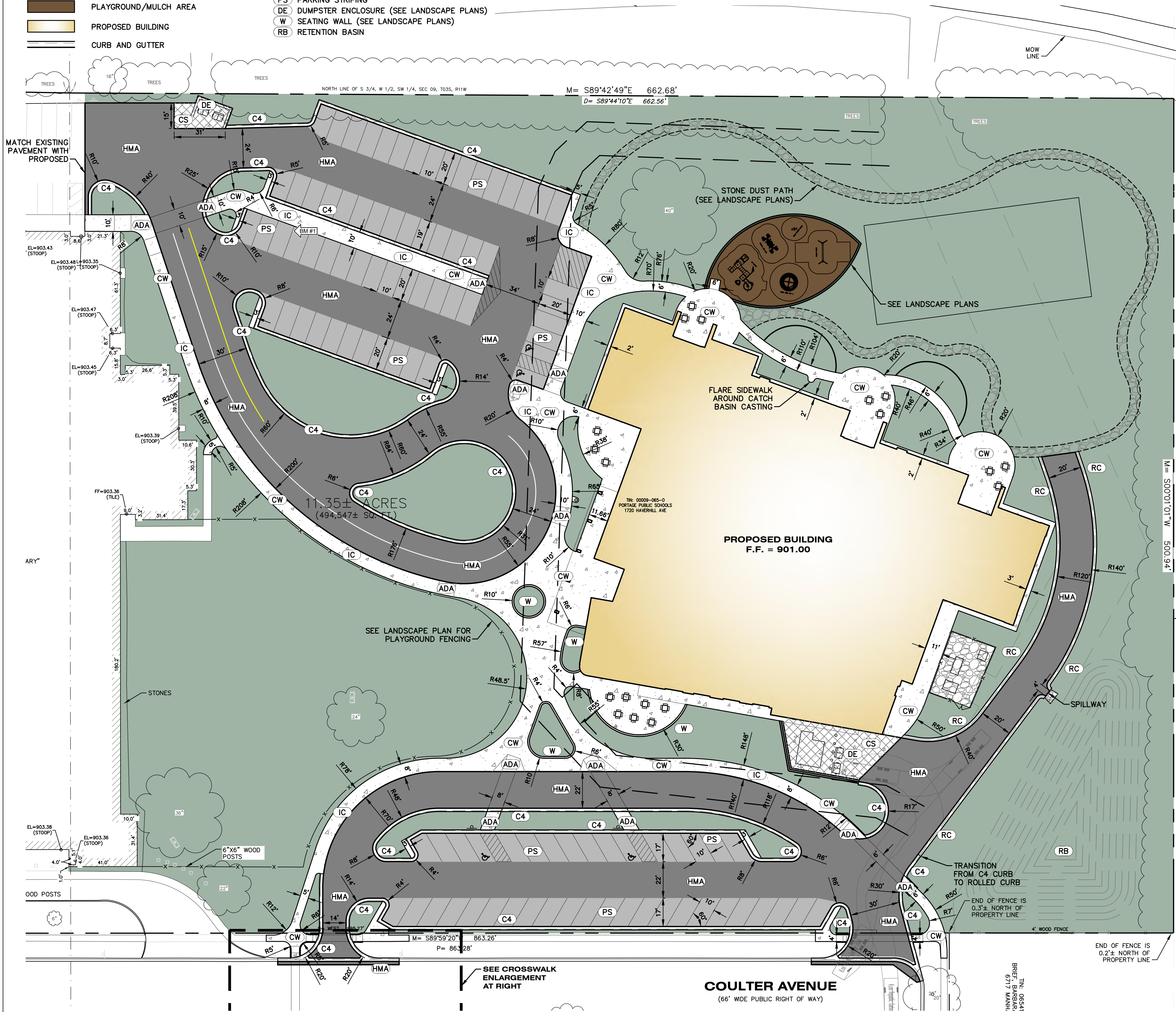


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 FIELD WORK PERFORMED BY:
 DRIESENGA & ASSOCIATES, LLC



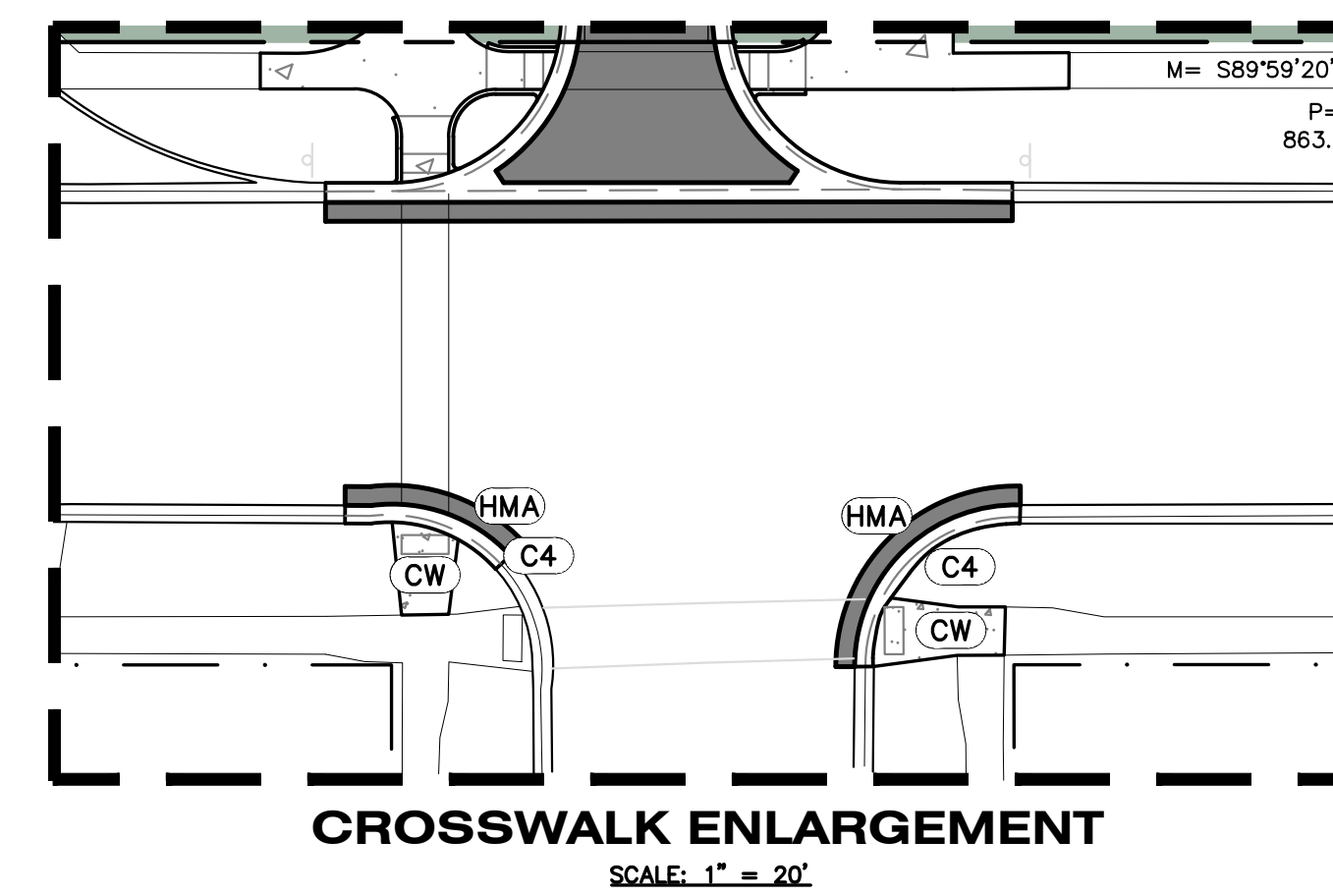
HS
hurley & stewart
 hurley & stewart, llc
 2800 s. 11th street
 kalamazoo, michigan 49009
 269.552.4960 fax 269.552.4961
 www.hurleystewart.com

LEGEND		SITE LEGEND	
[Symbol]	STANDARD-DUTY BITUMINOUS PAVEMENT (SEE DETAIL)	[Symbol]	HMA HMA PAVEMENT (SEE DETAIL)
[Symbol]	HEAVY-DUTY BITUMINOUS PAVEMENT (SEE DETAIL)	[Symbol]	C4 C4 CURB AND GUTTER (SEE DETAIL)
[Symbol]	CONCRETE PAVEMENT AND SIDEWALK (SEE DETAIL)	[Symbol]	RC ROLLED CURB (SEE DETAIL)
[Symbol]	HEAVY-DUTY CONCRETE PAVEMENT	[Symbol]	IC INTEGRAL CURB WALK (SEE DETAIL)
[Symbol]	PLAYGROUND/MULCH AREA	[Symbol]	ADA ADA RAMP (SEE GRADING PLAN)
[Symbol]	PROPOSED BUILDING	[Symbol]	CW CONCRETE WALK (SEE DETAIL)
[Symbol]	CURB AND GUTTER	[Symbol]	CS CONCRETE SURFACE (SEE DETAIL)
		[Symbol]	PS PARKING STRIPING
		[Symbol]	DE DUMPSTER ENCLOSURE (SEE LANDSCAPE PLANS)
		[Symbol]	W SEATING WALL (SEE LANDSCAPE PLANS)
		[Symbol]	RB RETENTION BASIN



PROJECT NOTES

1. ALL EXISTING ELEVATIONS ARE TO BE VERIFIED AND ACCEPTED AS SHOWN PRIOR TO COMMENCEMENT OF WORK.
2. VERIFY LOCATION AND ELEVATION OF EXISTING UTILITIES, INCLUDING ANY EXISTING SANITARY LEADS, PRIOR TO ORDERING STRUCTURES AND CONSTRUCTION.
3. COORDINATE ALL TRAFFIC CONTROL WITH CITY OF PORTAGE.
4. YIELD CALCULATIONS AND DENSITY TESTS OF THE HMA MATERIAL PLACED NEED TO BE PROVIDED. EXTRACTION/GRADATION/ANALYSIS ALSO NEEDS TO BE PROVIDED TO CONFIRM THAT THE MATERIAL PLACED MEETS PROJECT SPECIFICATIONS. THE ENGINEER, TESTING FIRM OR BOTH WILL NEED TO BE PRESENT DURING PAVING OPERATIONS.
5. CONTRACTOR TO OBTAIN A RIGHT OF WAY PERMIT FROM THE CITY OF PORTAGE. FEE AND BOND ARE REQUIRED.
6. ALL DIMENSIONS SHOWN ARE TO THE EDGE OF METAL.
7. PROVIDE CURB CUTS/RAMPS AT ALL BARRIER FREE ACCESS POINTS.
8. PAVEMENT MARKINGS AND SIGNAGE SHALL CONFORM TO THE CURRENT MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND MICHIGAN BARRIER FREE CODE.
9. ALL WORK SHALL CONFORM TO ALL LOCAL, STATE AND FEDERAL LAWS, RULES AND REGULATIONS IN FORCE AT THE TIME OF CONSTRUCTION.
10. THE CONTRACTOR SHALL LOCATE ALL ACTIVE UNDERGROUND UTILITIES PRIOR TO STARTING WORK AND SHALL CONDUCT HIS OPERATIONS IN A MANNER AS TO ENSURE THAT THOSE UTILITIES NOT REQUIRING RELOCATION WILL NOT BE DISTURBED.



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FIELD WORK PERFORMED BY:
 DRIESENKA & ASSOCIATES, LLC

ISSUED FOR DATE

PROJECT TITLE
 BID PACKAGE 3: HAVERHILL ELEMENTARY
 PLAYGROUND RELOCATION AND EARLY
 SITE PACKAGE

OWNER
 PORTAGE PUBLIC SCHOOLS

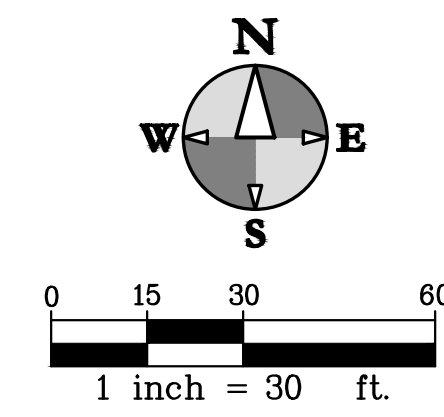
Portage, Michigan

SHEET TITLE
 SITE LAYOUT PLAN

DATE
 DECEMBER 16, 2022

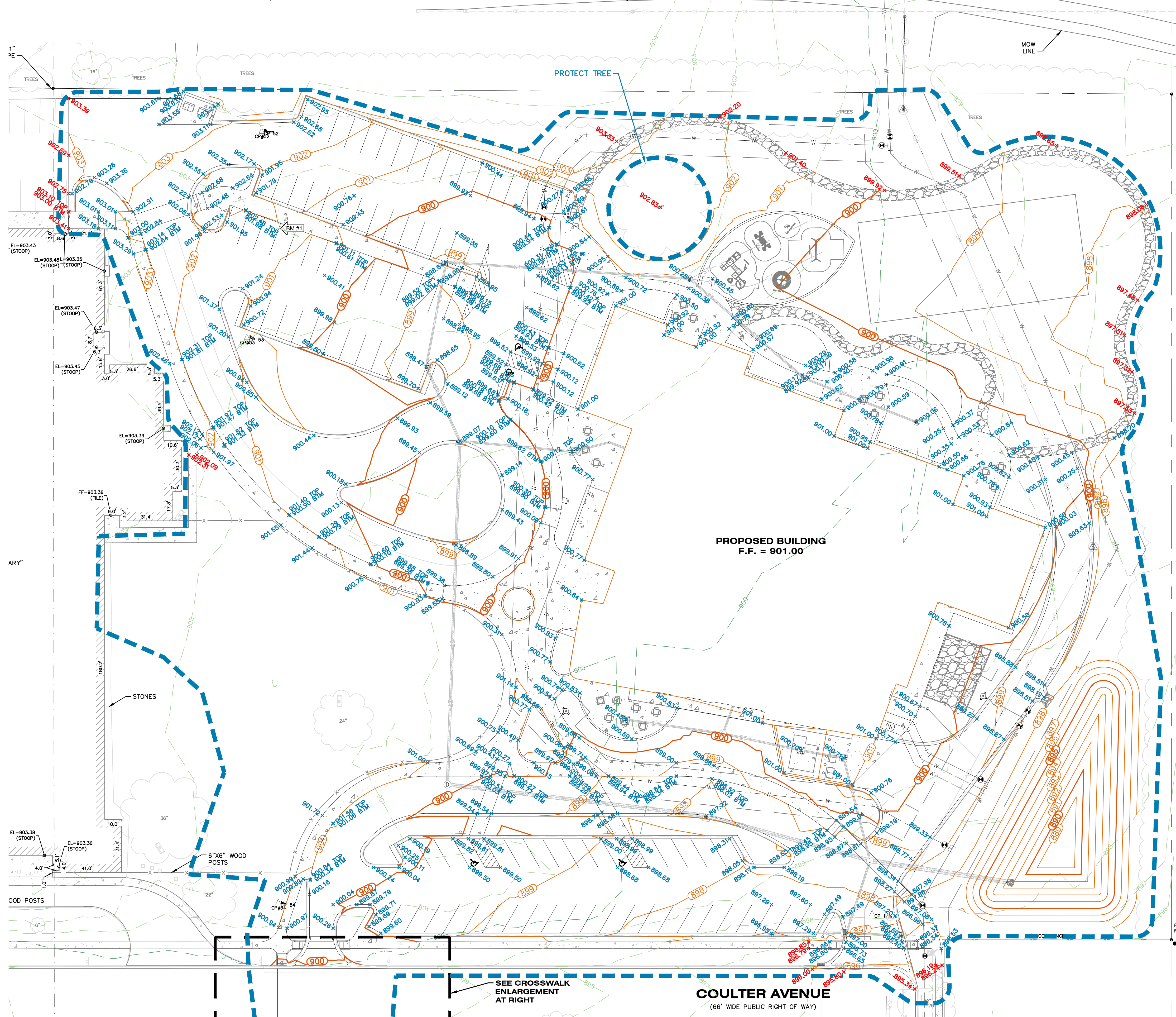
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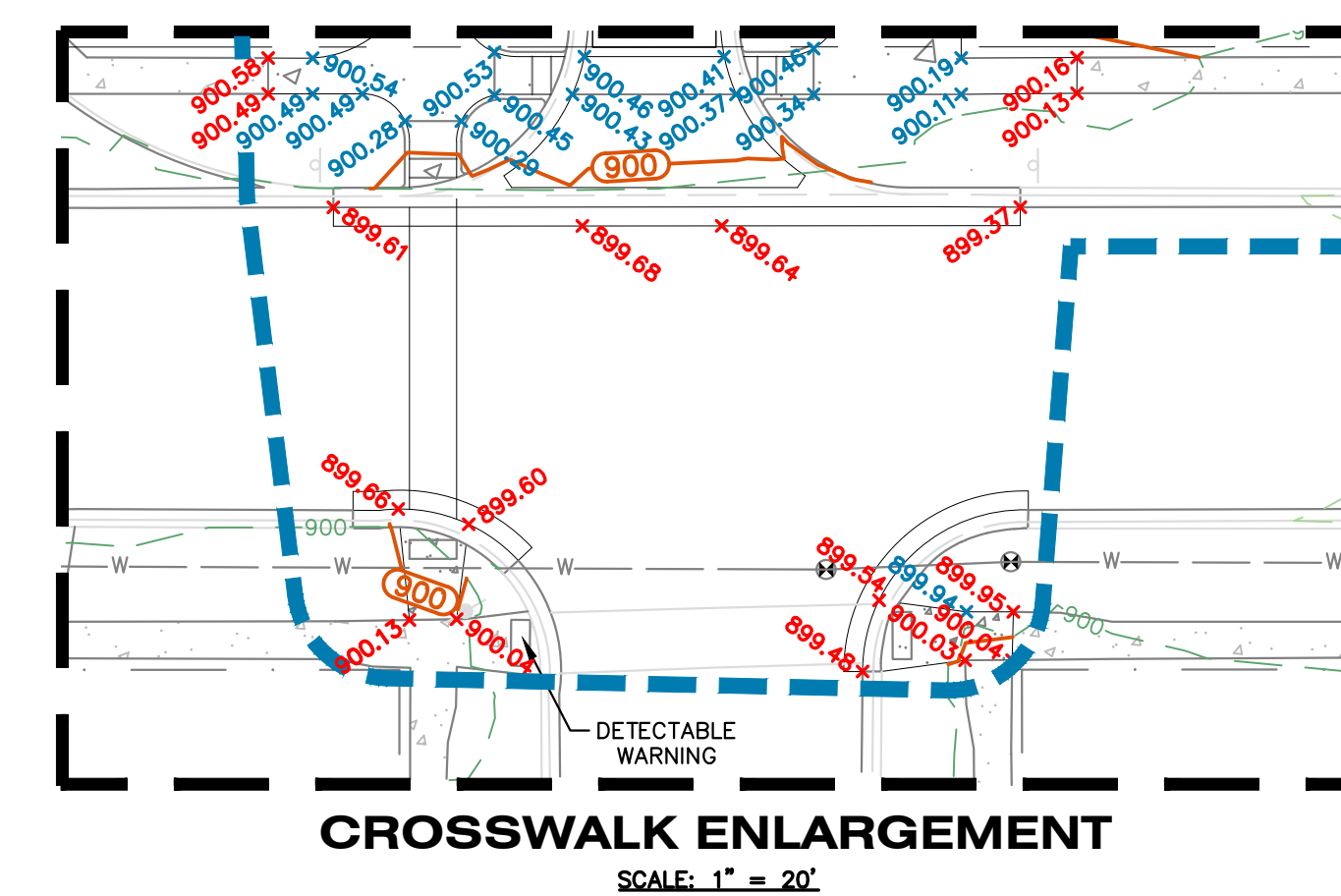
GRADING PLAN LEGEND

- | | | | | |
|--|-------------------------|--|-----------------------------|---|
| | PROPOSED CONTOUR 5-FT | | 896.32 | PROPOSED SPOT GRADE |
| | PROPOSED CONTOUR NORMAL | | 894.78
894.38
894.51M | PROPOSED SPOT GRADES: TOP AND BOTTOM OF CURB/WALL |
| | EXISTING CONTOUR 5-FT | | 895.25 | EXISTING SPOT GRADE |
| | EXISTING CONTOUR NORMAL | | | PROPOSED SURFACE SLOPE |
| | PROPOSED GRADED SWALE | | | BENCH MARK |
| | LIMITS OF GRADING | | | |



GRADING NOTES

1. MATCH EXISTING GRADES AROUND PERIMETER WITH SLOPES AS SHOWN. MATCH AT 1 ON 4 IF NOT LABELED.
2. THE CONTRACTOR SHALL INSTALL PEDESTRIAN FENCE AROUND ALL EXCAVATIONS TO BE LEFT OPEN OVERNIGHT AS REQUIRED.
3. ALL SOIL EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO MASS GRADING.
4. ALL EXISTING ELEVATIONS ARE TO BE VERIFIED AND ACCEPTED AS SHOWN PRIOR TO COMMENCEMENT OF WORK.
5. REMOVE AND REPLACE WITH CONTROLLED FILL ANY AREAS THAT HAVE BEEN SOFTENED BY RAINS, FREEZING, CONSTRUCTION EQUIPMENT, ETC.
6. ALL REQUIRED FILL FOR THIS PROJECT SHALL BE SELECTED EXCAVATED MATERIAL FROM THE SITE APPROVED BY THE ENGINEER OR CLASS II GRANULAR MATERIAL FROM BORROW AND SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
7. ALL GRANULAR FILL UNDER THE INFLUENCE OF THE ROADWAY AND PROCESSED ROAD GRAVEL SHALL BE COMPACTED TO 95% MODIFIED PROCTOR DENSITY.
8. ALL COMPACTION SHALL BE ACCOMPLISHED BY PLACING THE FILL IN 6" LOOSE LIFTS AND MECHANICALLY COMPACTING EACH LIFT TO AT LEAST THE SPECIFIED MINIMUM DRY DENSITY. FIELD DENSITY TESTS SHOULD BE PERFORMED ON EACH LIFT AS NECESSARY TO ENSURE THAT ADEQUATE MOISTURE CONDITIONS AND COMPACTION ARE BEING ACHIEVED.
9. SITE CONTRACTOR SHALL REMOVE AND STOCKPILE ALL TOPSOIL AND BLACK ORGANIC SOILS ON-SITE TO BE USED IN THE REGRADING OF LANDSCAPE AREAS. THIS MATERIAL IS NOT TO BE USED FOR FILL OR PAVEMENT SUBBASE. REMOVAL OF ANY EXCESS SOIL OFF-SITE SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
10. CONTRACTOR RESPONSIBLE FOR VERIFYING EARTHWORK CALCULATIONS PRIOR TO COMMENCING WORK. NO EXTRA EARTHWORK WILL BE PAID FOR ONCE EARTHWORK HAS BEGUN. ANY DISCREPANCIES WITH THE EARTHWORK CALCULATIONS SHALL BE REVIEWED WITH THE OWNER AND ENGINEER PRIOR TO CONSTRUCTION.
11. IF ANY ERRORS, DISCREPANCIES, OR OMISSIONS BECOME APPARENT, THESE SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION OF ANYTHING AFFECTED SO THAT CLARIFICATION OR REDESIGN MAY OCCUR.



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 FIELD WORK PERFORMED BY:
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 PLAYGROUND RELOCATION AND EARLY
 SITE PACKAGE

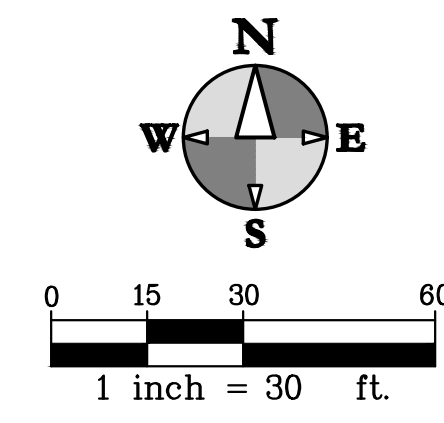
OWNER
 PORTAGE PUBLIC SCHOOLS

Portage, Michigan

SHEET TITLE
 SITE GRADING PLAN

DATE
 DECEMBER 16, 2022

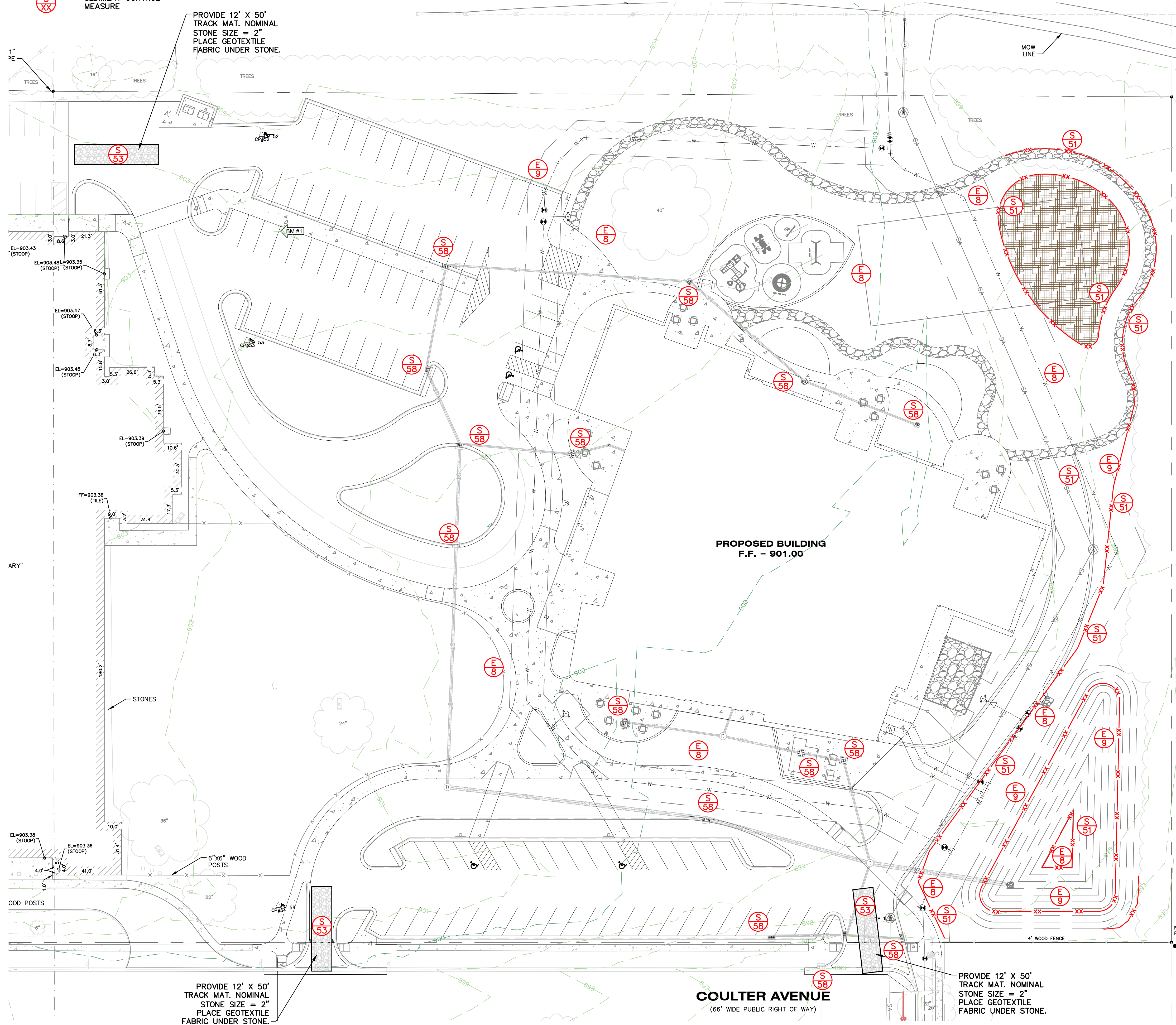
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SESC PLAN LEGEND

- xx- PROPOSED SILT FENCE
- SOIL BORING
- BENCH MARK
- SOIL EROSION MEASURE
- SEDIMENT CONTROL MEASURE

PROVIDE 12' X 50'
 TRACK MAT. NOMINAL
 STONE SIZE = 2"
 PLACE GEOTEXTILE
 FABRIC UNDER STONE.



**SOIL EROSION AND
 SEDIMENTATION CONTROL MEASURES**

KEY	BEST MANAGEMENT PRACTICES	SYMBOL	WHERE USED
E8	PERMANENT SEEDING		Stabilization method utilized on sites where earth change has been completed (final grading attained).
E9	MULCH BLANKETS		On exposed slopes, newly seeded areas, new ditch bottoms, or areas subject to erosion.
E12	RIPRAP		Use along shorelines, waterways, or where concentrated flows occur. Slows velocity, reduces sediment load, and reduces erosion.
S51	SILT FENCE		Use adjacent to critical areas, to prevent sediment laden sheet flow from entering these areas.
S53	STABILIZED CONSTRUCTION ACCESS		Used at every point where construction traffic enters or leaves a construction site.
S58	INLET PROTECTION FABRIC DROP		Use at stormwater inlets, especially at construction sites.

ISSUED FOR _____ DATE _____

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 PLAYGROUND RELOCATION AND EARLY
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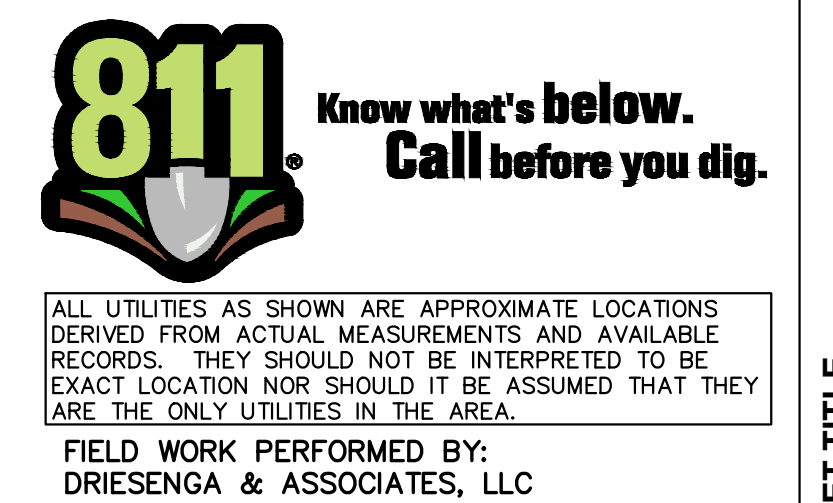
OWNER
 PORTAGE PUBLIC SCHOOLS

Portage, Michigan

SHEET TITLE
 SITE SESC PLAN

DATE
 DECEMBER 16, 2022

SHEET NUMBER
 C 301
 21-237.22



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PROJECT TITLE
**BID PACKAGE 3: HAVERHILL ELEMENTARY
 PLAYGROUND RELOCATION AND EARLY
 SITE PACKAGE**

OWNER
PORTAGE PUBLIC SCHOOLS

Portage, Michigan

SHEET TITLE
SITE SESC NOTES & SCHEDULE

SHEET NUMBER
C 302
 DATE
DECEMBER 16, 2022
 21-237.22

SOIL EROSION CONTROL MAINTENANCE TASKS AND SCHEDULE

SESC NOTES

- ALL WORK WILL COMPLY WITH THE PROVISIONS OF THE SOIL EROSION AND SEDIMENTATION CONTROL ACT (PA 451, PART 91 OF 1994 AS AMENDED) ADMINISTERED BY THE CITY OF PORTAGE.
- SITES WITH DISTURBANCE LARGER THAN 5 ACRES NEED TO FOLLOW THE SOIL EROSION AND SEDIMENTATION CONTROL GUIDEBOOK BY THE STATE OF MICHIGAN DEPARTMENT OF MANAGEMENT AND BUDGET OFFICE OF FACILITIES, DESIGN AND CONSTRUCTION DIVISION.
- AVOID UNNECESSARY DISTURBING OR REMOVING EXISTING VEGETATED TOPSOIL OR EARTH COVER. THESE AREAS ACT AS SEDIMENT FILTERS.
- ALL TEMPORARY SOIL EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL SITE IS ESTABLISHED.
- PROVIDE INSTALL INLET PROTECTION AT ALL STORM SEWER STRUCTURES DURING CONSTRUCTION.
- NO SITE WORK SHALL BEGIN UNTIL THE SILT FENCE AND ACCESS ROAD ARE INSTALLED.
- ALL SOIL PILES SHALL BE SURROUNDED BY SILT FENCE IF ALLOWED TO REMAIN IN PLACE FOR MORE THAN 7 DAYS. TOPSOIL PILES SHALL BE SEEDED IF ALLOWED TO REMAIN IN PLACE FOR MORE THAN 20 DAYS. SPOIL PILES SHALL NOT BE PLACED WITHIN 50' FROM ANY TEMPORARY OR PERMANENT WATERCOURSE.
- THE CONTRACTOR SHALL COMPLY WITH THE WEEKLY RECOMMENDATIONS OF THE CERTIFIED STORM WATER OPERATOR.
- ALL INLETS IN PAVED AREAS SHALL HAVE INLET PROTECTION DURING CONSTRUCTION.
- COORDINATE TOPSOIL STOCKPILE WITH OWNER.
- PLACE TRACK MATS AT THE ENTRANCE OF SITE TO REDUCE MATERIAL TRACKED OFF SITE.
- COORDINATE THE CLEARING LIMITS WITH THE OWNER PRIOR TO COMMENCING WORK.
- PLACE "DO NOT ENTER CONSTRUCTION ZONE" SIGNS AT ALL ENTRY POINTS TO PROJECT.
- PROVIDE SILT SACKS IN EACH CATCH BASIN UNTIL SITE IS STABILIZED.
- ALL SOIL EROSION MEASURES SHALL BE IN PLACE PRIOR TO COMMENCING WORK.
- PLACE SILT FENCES ALONG THE TOE OF TOPSOIL STOCKPILES AND OTHER FILL AREAS. SEED TOPSOIL STOCKPILE AND MAINTAIN SILT FENCES UNTIL SITE IS STABILIZED.
- MAINTAIN A VEGETATIVE BUFFER WHEREVER POSSIBLE.
- CLEAN ADJACENT ROADWAYS WHEN NECESSARY.
- WATER SITE WHEN NECESSARY TO PREVENT AIR BORNE SEDIMENT TRANSFER.
- CONTRACTOR TO COMPLETE AND SUBMIT A SOIL EROSION AND SEDIMENT CONTROL PERMIT APPLICATION TO THE CITY. THE FEE AND BOND ARE REQUIRED.
- CONTRACTOR TO INSTALL A PERMIT BOX ON SITE AND PLACE WEATHER CARD AND LAMINATED 11X17 REDUCTION OF APPROVED SESC PLANS. CONTRACTOR TO PRINT AND LAMINATE THE 11X17 REDUCTION OF THE APPROVED SESC PLANS.

DURING CONSTRUCTION
 TO BE PERFORMED BY CONTRACTOR

TASKS	COMPONENTS	PAVED AREAS	STORM DRAINAGE SYSTEM	CATCH BASIN SUMPS	CATCH BASIN INLET CASTINGS	SITE DISTURBED AREA	SCHEDULE
INSPECT FOR SEDIMENT ACCUMULATION			X	X	X	X	WEEKLY
REMOVAL OF SEDIMENT ACCUMULATION			X	X		X	AS NEEDED* AND PRIOR TO TURNOVER
INSPECT FOR FLOATABLES AND DEBRIS			X	X	X		QUARTERLY
CLEANING FOR FLOATABLES AND DEBRIS			X	X	X		QUARTERLY AND AT TURNOVER
INSPECTION FOR EROSION						X	WEEKLY
REESTABLISH PERMANENT VEGETATION ON ERODED SLOPES						X	AS NEEDED AND PRIOR TO TURNOVER
INSPECT STRUCTURAL ELEMENTS DURING WET WEATHER AND COMPARE TO AS-BUILT PLANS (BY A PROFESSIONAL ENGINEER REPORTING TO THE OWNER)			X				ANNUALLY AND AT TURNOVER
MAKE ADJUSTMENTS OR REPLACEMENTS AS DETERMINED			X			X	AS NEEDED

* "AS NEEDED" MEANS WHEN SEDIMENT HAS ACCUMULATED TO A MAXIMUM OF ONE FOOT DEPTH

PRELIMINARY CONSTRUCTION SCHEDULE						
	MARCH	APRIL	MAY	JUNE	JULY	
INSTALL TEMPORARY MEASURES	X					
PERFORM EARTHWORK		X				
INSTALL PERMANENT MEASURES		X				
RESTORATION			X			
SUBSTANTIAL COMPLETION			X	X		
FINAL COMPLETION				X	X	

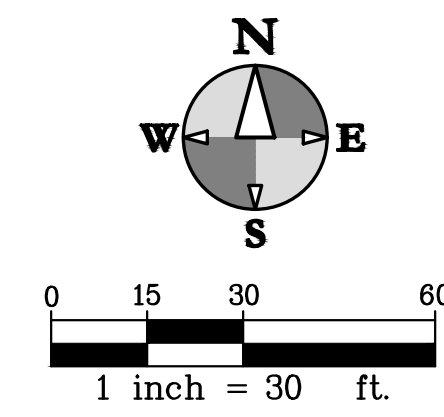
MAINTENANCE AFTER CONSTRUCTION:

- TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED BY THE CONTRACTOR ONLY AFTER THE ENTIRE SITE HAS BEEN RESTORED.
- CITY OF PORTAGE SHALL MAINTAIN STORM DRAINAGE IMPROVEMENTS.
- FUTURE BUILDING AND SITE PHASES SHALL BE COMPLETED UNDER A SEPARATE OR AMENDED SESC PERMIT AND NOT SHOWN HERE.

PERMANENT MAINTENANCE
 TO BE PERFORMED BY THE DEPARTMENT OF TRANSPORTATION AND UTILITIES

TASKS	COMPONENTS	PAVED AREAS	STORM DRAINAGE SYSTEM	CATCH BASIN SUMPS	CATCH BASIN INLET CASTINGS	SCHEDULE
INSPECT FOR SEDIMENT ACCUMULATION			X	X		SEMI-ANNUALLY AS NEEDED*
REMOVAL OF SEDIMENT ACCUMULATION			X	X		ANNUALLY AS NEEDED*
INSPECT FOR FLOATABLES AND DEBRIS			X	X	X	ANNUALLY
CLEANING FOR FLOATABLES AND DEBRIS			X	X	X	ANNUALLY
INSPECTION FOR EROSION						ANNUALLY
REESTABLISH PERMANENT VEGETATION ON ERODED SLOPES						AS NEEDED
CLEAN DRIVES AND PARKING LOTS		X				SEMI-ANNUALLY
INSPECT STRUCTURAL ELEMENTS DURING WET WEATHER AND COMPARE TO AS-BUILT PLANS (BY A PROFESSIONAL ENGINEER REPORTING TO THE OWNER)			X			SEMI-ANNUALLY
MAKE ADJUSTMENTS OR REPLACEMENTS AS DETERMINED BY ANNUAL WET WEATHER INSPECTION			X			ANNUALLY
OWNER TO HAVE A PROFESSIONAL ENGINEER CARRY OUT EMERGENCY INSPECTIONS UPON IDENTIFICATION OF SEVERE PROBLEMS			X	X	X	AS NEEDED

* "AS NEEDED" MEANS WHEN SEDIMENT HAS ACCUMULATED TO A MAXIMUM OF ONE FOOT DEPTH



WATER MAIN FITTING SCHEDULE

FITTING NUMBER	DESCRIPTION	TOTAL THIS SHEET
1	FIRE HYDRANT ASSEMBLY W/ 6" VALVE	2
2	8" GATE VALVE AND BOX	2
3	8" X 6" REDUCER	0
4	8" X 6" TEE	2
5	6" 45° BEND	1
6	8" X 8" TEE	0
7	8" 22.5° BEND	3
8	8" 45° BEND	3
9	2" TAPPING SLEEVE W/ VALVE	1
10	4" TAPPING SLEEVE W/ VALVE	1
11	4" 45° BEND	2

LEGEND

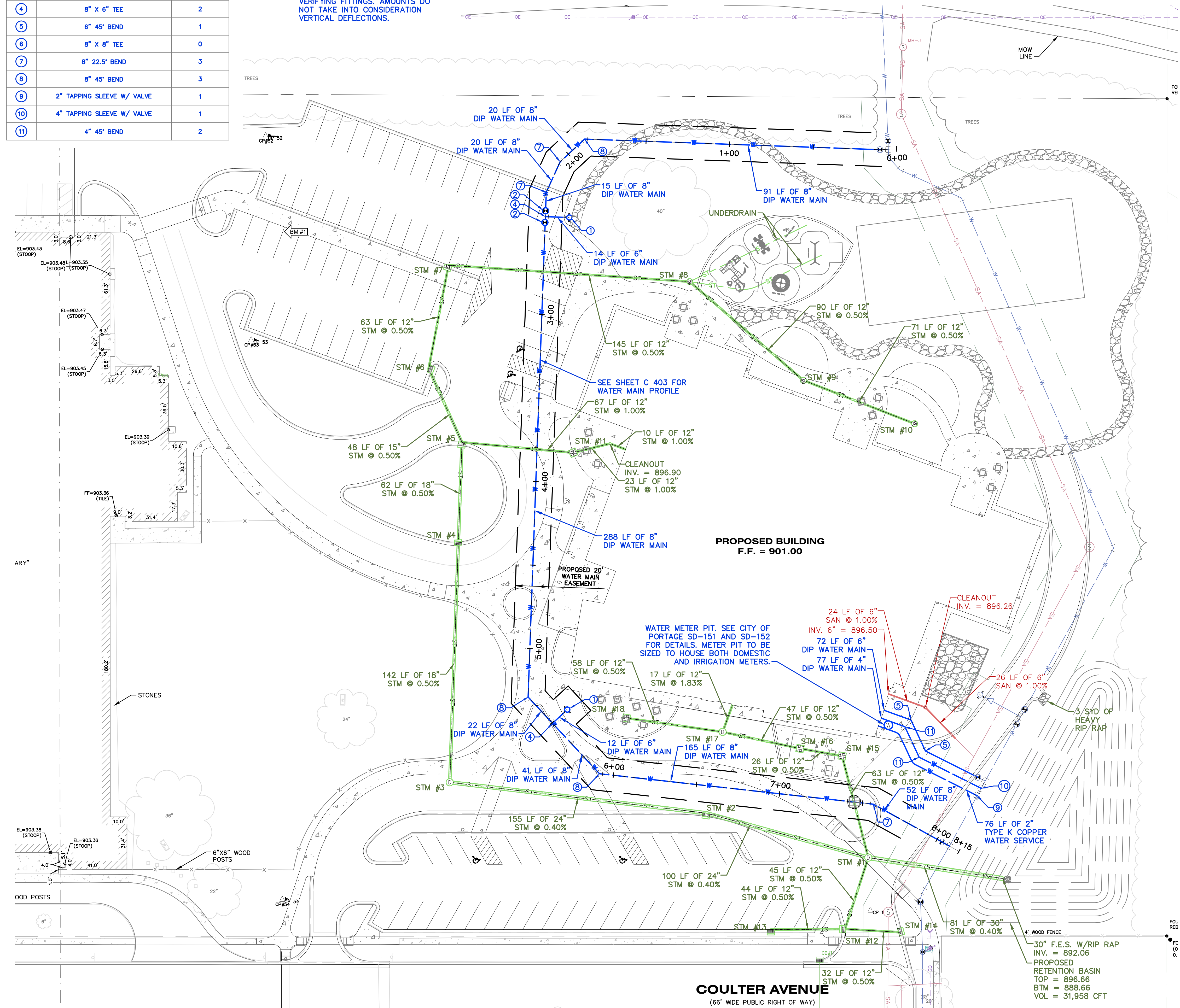
- DEFLECT WATER MAIN UNDER/OVER PIPE CONFLICT (SEE DETAIL)
 - LOWER WATER MAIN UNDER CONFLICT, MAINTAIN MIN 6" VERT. CLEARANCE
- NOTE:
 CONTRACTOR RESPONSIBLE FOR VERIFYING FITTINGS. AMOUNTS DO NOT TAKE INTO CONSIDERATION VERTICAL DEFLECTIONS.

STORM SEWER STRUCTURE SCHEDULE

STR. #	RIM EL.	DIAM.	CASTING	PIPES IN:	PIPES OUT
STM #1	898.61	6"	1040 A	24" W: 892.38 12" S: 892.44 12" N: 895.00	30" E: 892.38
STM #2	897.72	4"	7045 M1	24" W: 892.79	24" E: 892.79
STM #3	900.14	4"	1040 A	18" N: 893.41	24" E: 893.41
STM #4	898.89	4"	7045 M1	18" N: 894.12	18" S: 894.12
STM #5	899.07	4"	7045 M1	15" NW: 894.43 12" E: 894.44	18" S: 894.43
STM #6	898.47	4"	7045 M1	12" N: 894.67	15" SE: 894.67
STM #7	898.84	2"	7045 M1	12" E: 894.98	12" S: 894.98
STM #8	900.28	4"	1040 O2	12" SE: 895.71	12" W: 895.71
STM #9	899.92	4"	1040 M1	12" E: 896.16	12" NW: 896.16
STM #10	900.06	2"	1040 O2		12" W: 896.52
STM #11	900.50	2"	5105 M1	12" E: 896.67	12" W: 895.10
STM #12	897.01	4"	7045 M1	12" E: 892.97 12" W: 892.67	12" N: 892.67
STM #13	896.95	2"	7045 M1		12" E: 892.89
STM #14	896.69	2"	7045 M1		12" W: 893.13
STM #15	900.71	4"	5105 M1	12" W: 895.31	12" S: 895.31
STM #16	900.70	4"	5105 M1	12" W: 895.44	12" E: 895.44
STM #17	900.17	4"	1040A	12" N: 896.69 12" W: 895.68	12" E: 895.68
STM #18	900.45	4"	5105 M1		12" E: 895.97

UTILITY NOTES

- ALL STRUCTURE CASTINGS TO BE EAST JORDAN IRON WORKS OR APPROVED EQUAL. CASTINGS SHOULD FOLLOW SPEC 207.3.2.6 OF THE CITY OF PORTAGE GENERAL SPECIFICATION MANUAL, EXCEPT COVERS SHALL NOT BE VENTED. ALL CASTINGS TO HAVE CITY OF PORTAGE LOGO. SEE STRUCTURE TABLE FOR SPECIFIC CASTING AT EACH STRUCTURE.
- ALL WATER MAINS AND THEIR APPURTENANCES SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF PORTAGE SPECIFICATIONS AND AWWA STANDARD C600.
- WATER MAIN FLUSHING SHALL PROVIDE A MINIMUM WATER VELOCITY OF 3.0 FEET PER SECOND IN ACCORDANCE WITH AWWA STANDARD C651.
- ALL WATER MAIN SHALL BE POLY WRAPPED. THE PLY WRAP SHALL CONFORM TO AWWA STANDARD C105.
- ALL SANITARY SEWERS AND THEIR APPURTENANCES SHALL BE IN ACCORDANCE WITH THE CITY OF PORTAGE SPECIFICATIONS.
- ALL STORM SEWER SHALL BE INSTALLED IN ACCORDANCE WITH CITY OF PORTAGE SPECIFICATIONS.
- STORM SEWERS SHALL BE REINFORCED CONCRETE PIPE (RCP). ASTM C78-III OR SOLID WALL ADS N-12 RIGID PIPE MEETING AASHTO M-294, TYPE S, OR APPROVED EQUAL INSTALLED PER THE REQUIREMENTS OF MDOT AND THE CITY OF PORTAGE. USE CONCRETE PIPE WHERE PIPE DIAMETER IS 30" OR LARGER.
- THE CONTRACTOR SHALL INSTALL PEDESTRIAN FENCE AROUND ALL EXCAVATIONS TO BE LEFT OPEN OVERNIGHT AS REQUIRED.
- ANY UTILITIES REQUIRING DEWATERING SHALL BE INSTALLED TO THE CITY OF PORTAGE STANDARDS AND INCLUDED IN THE INSTALLATION COSTS. CONTRACTOR IS RESPONSIBLE FOR ALL DEWATERING NECESSARY TO CONSTRUCT UTILITIES IN THE DRY.
- IF ANY ERRORS, DISCREPANCIES, OR OMISSIONS BECOME APPARENT, THESE SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION OF ANYTHING AFFECTED SO THAT CLARIFICATION OR REDESIGN MAY OCCUR.
- DEWATERING MAY BE REQUIRED TO INSTALL OR REMOVE SOME UTILITIES. REFER TO SPECIFICATIONS FOR SPECIFIC REQUIREMENTS.
- REMOVE ANY ACCUMULATED SEDIMENT FROM ALL STRUCTURES AND REMOVE SILT SACKS ONCE SITE IS ESTABLISHED.
- PROVIDE 18" WATER MAIN SEPARATION WHEN CROSSING OTHER UTILITIES. DEFLECT PER DETAIL ON SHEET C 501.
- CONTRACTOR TO CLEAN THE EXISTING STORM SEWER FROM COULTER TO MANHATTAN AND TO VIDEO THE EXISTING STORM SEWER AFTER THE STORM SEWER HAS BEEN CLEANED. TO BE CONSIDERED INCIDENTAL TO THE PROJECT.
- SANITARY AND WATER LEAD LOCATIONS AND ELEVATIONS ARE SHOWN BASED ON CITY LEAD CARDS AND RECORD DATA. THE CONTRACTOR SHALL EXCAVATE ALL LEADS TO LOCATE AND VERIFY THIS INFO PRIOR TO ANY MASS EXCAVATION OR TEMPORARY SEWER CONSTRUCTION. PROVIDE FIELD GATHERED LEAD INFORMATION TO THE ENGINEER FOR DESIGN VERIFICATION.



ISSUED FOR _____ DATE _____

PROJECT TITLE
**BID PACKAGE 3: HAVERHILL ELEMENTARY
 PLAYGROUND RELOCATION AND EARLY
 SITE PACKAGE**

OWNER
PORTAGE PUBLIC SCHOOLS

Portage, Michigan

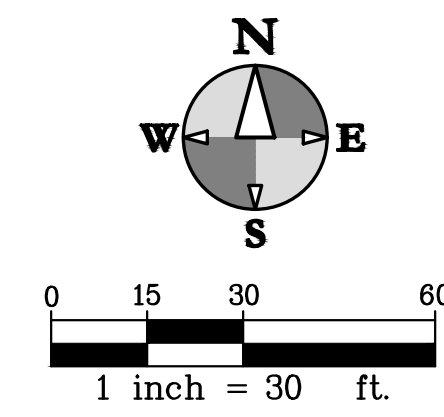
SHEET TITLE
SITE UTILITY PLAN

DATE
DECEMBER 16, 2022

SHEET NUMBER
C 402
 21-237.22

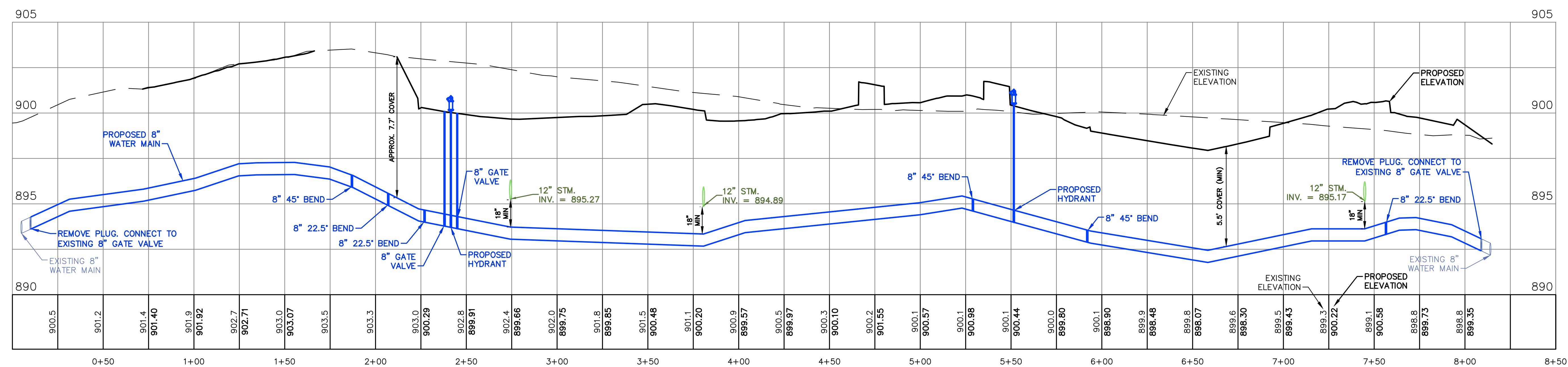
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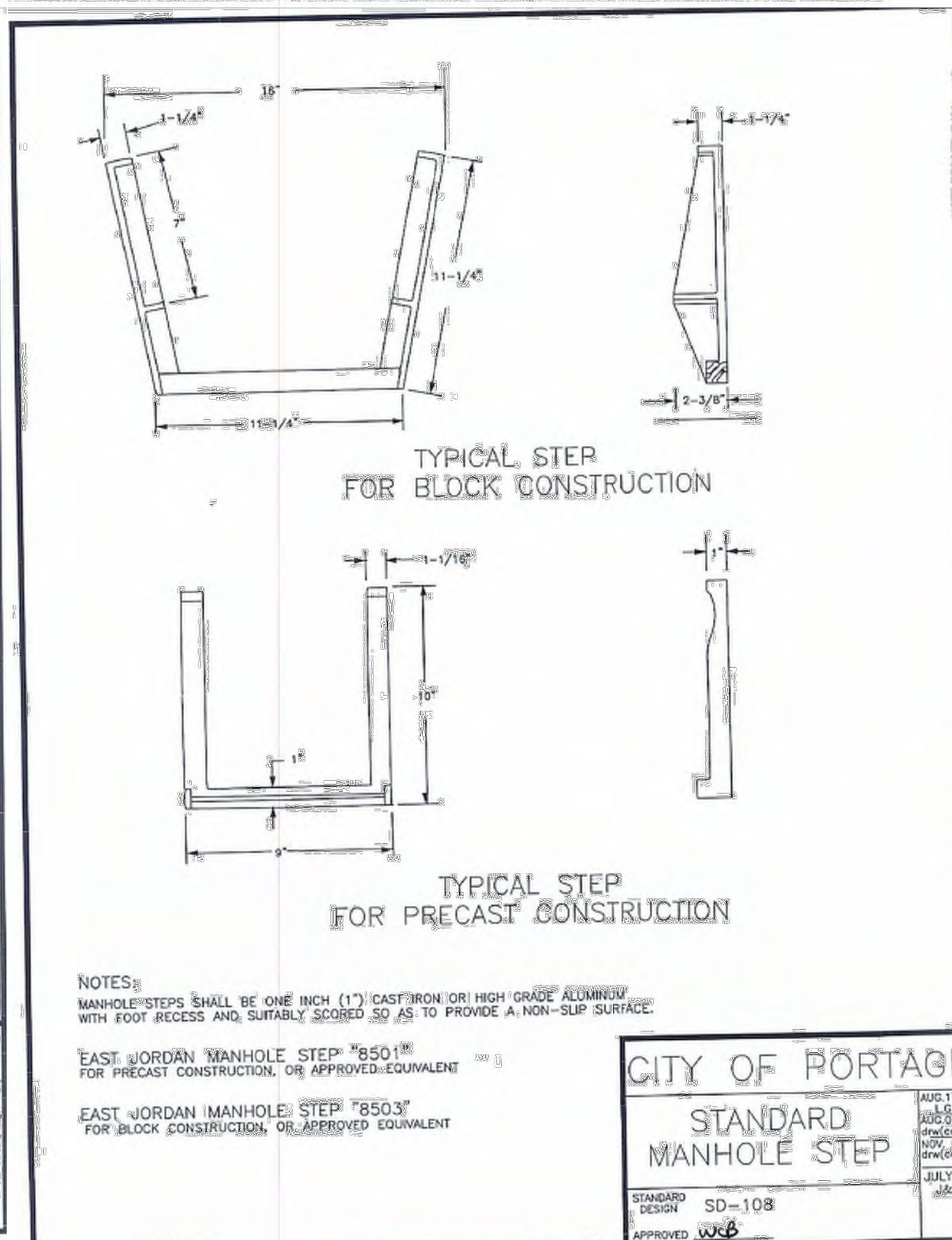
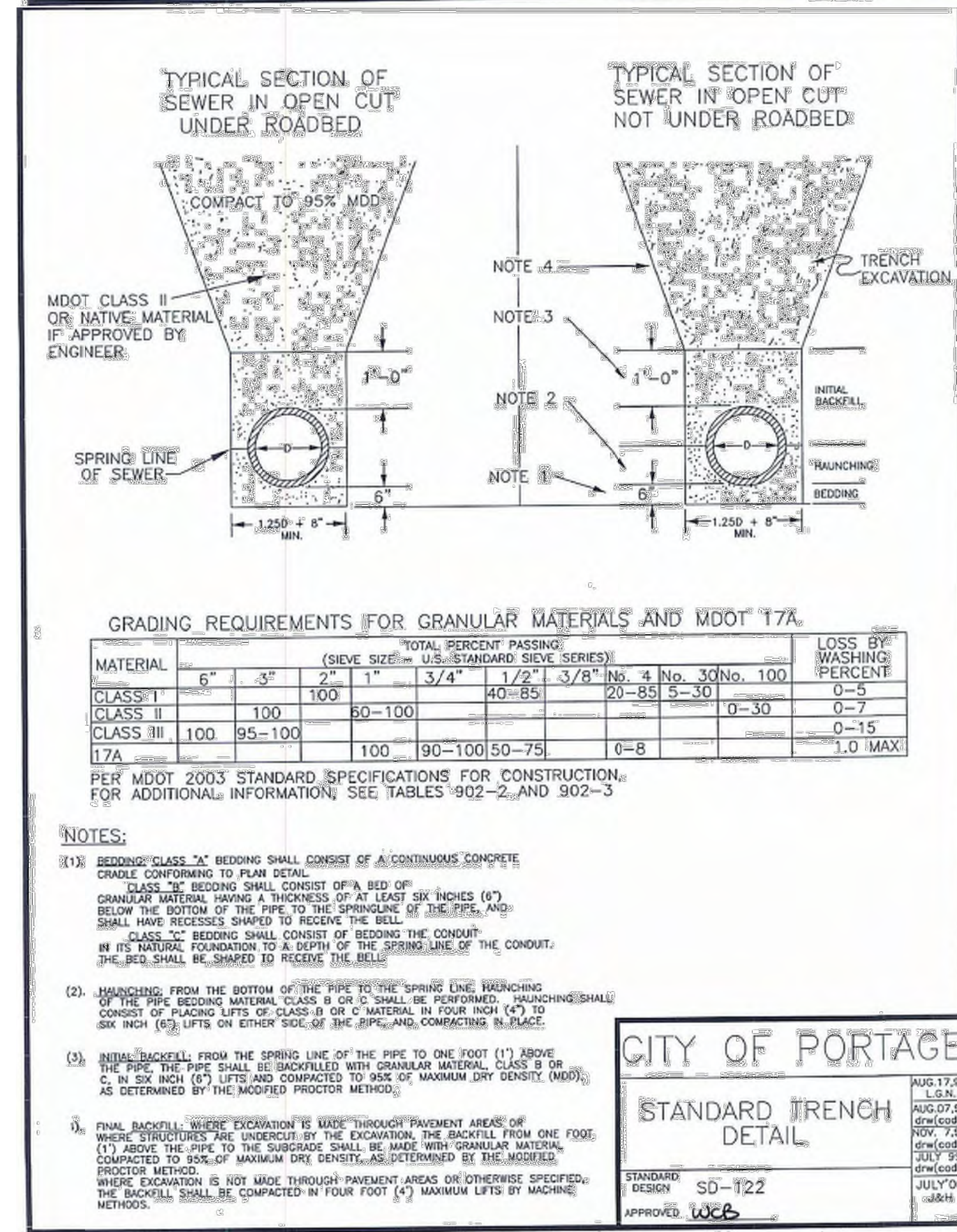
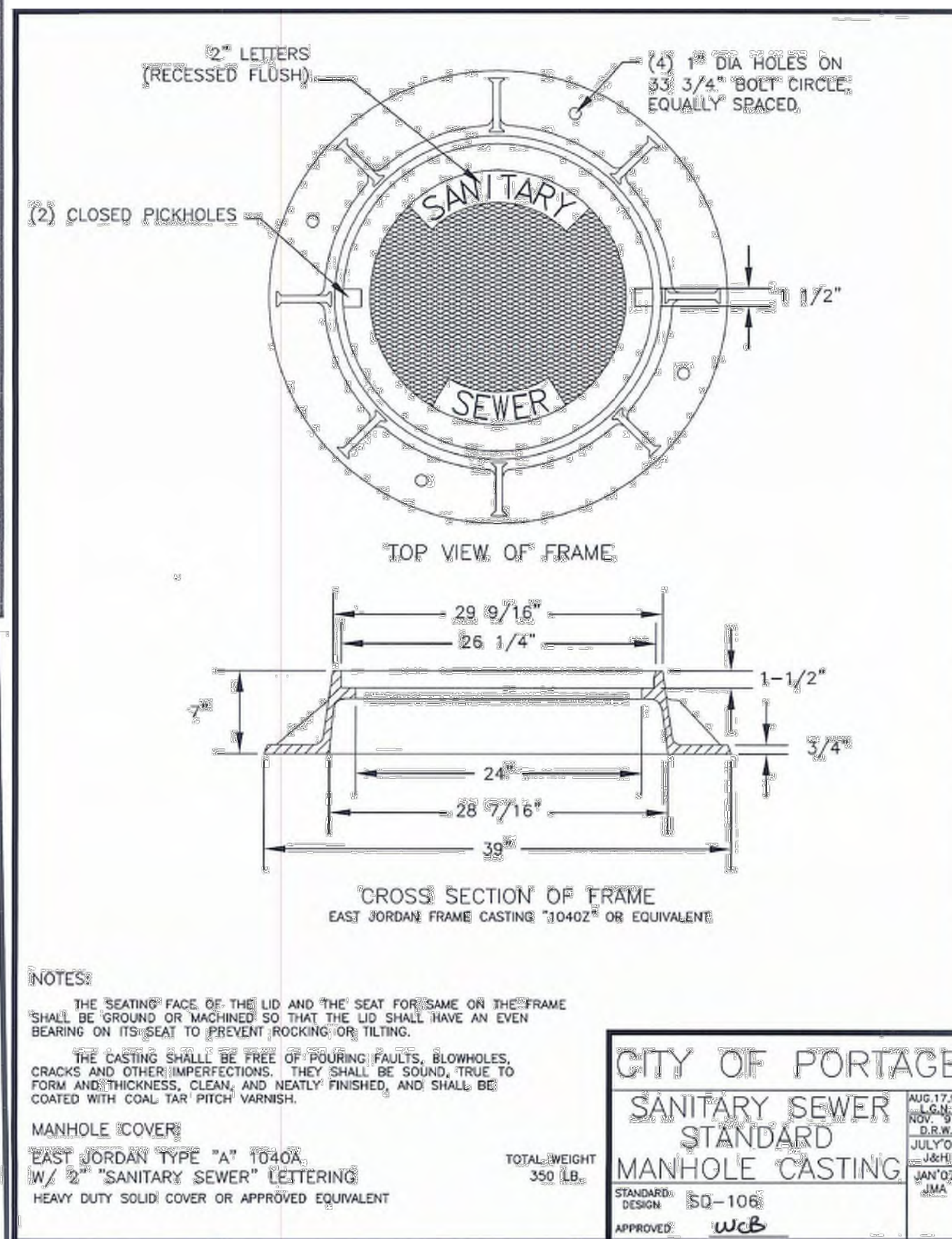
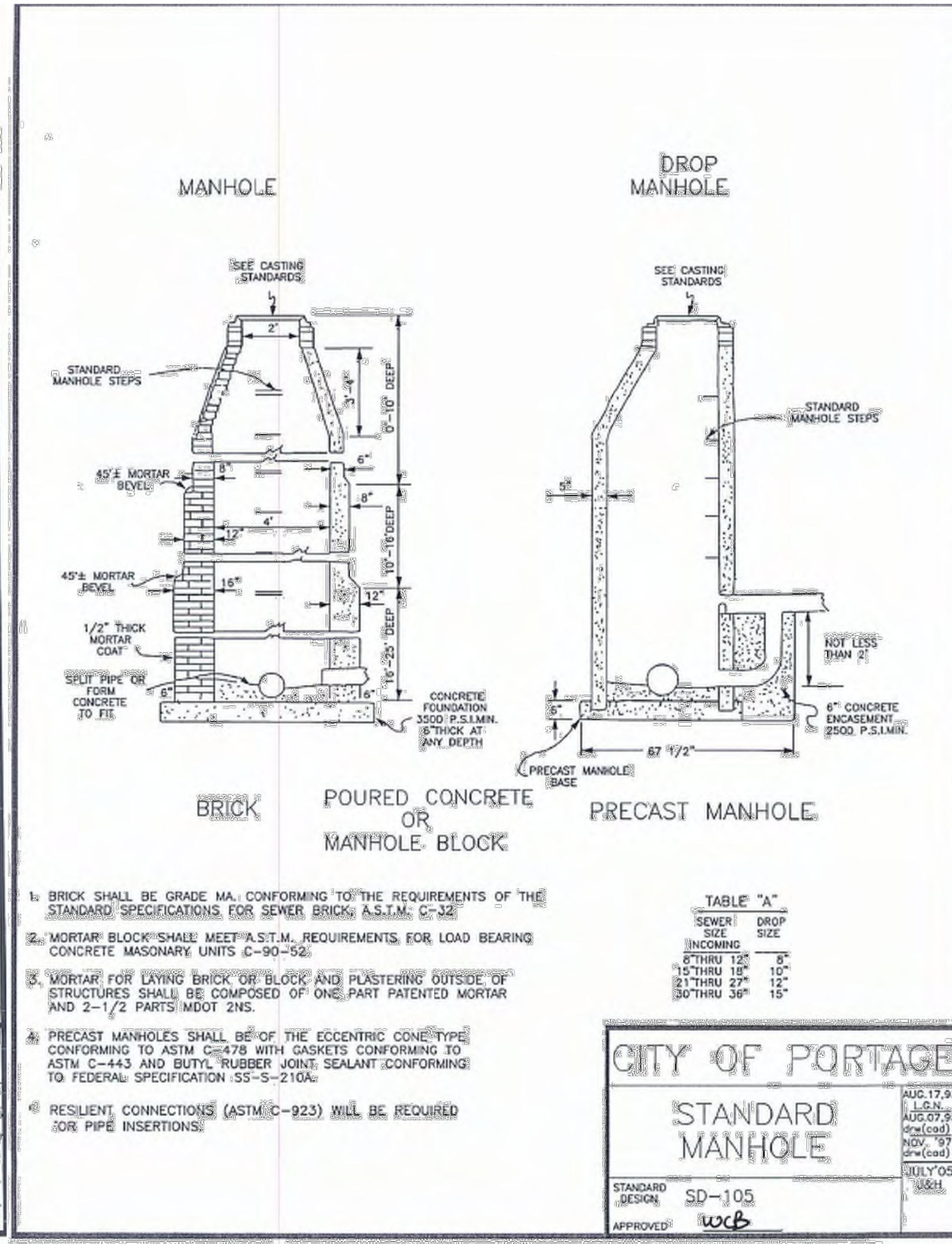
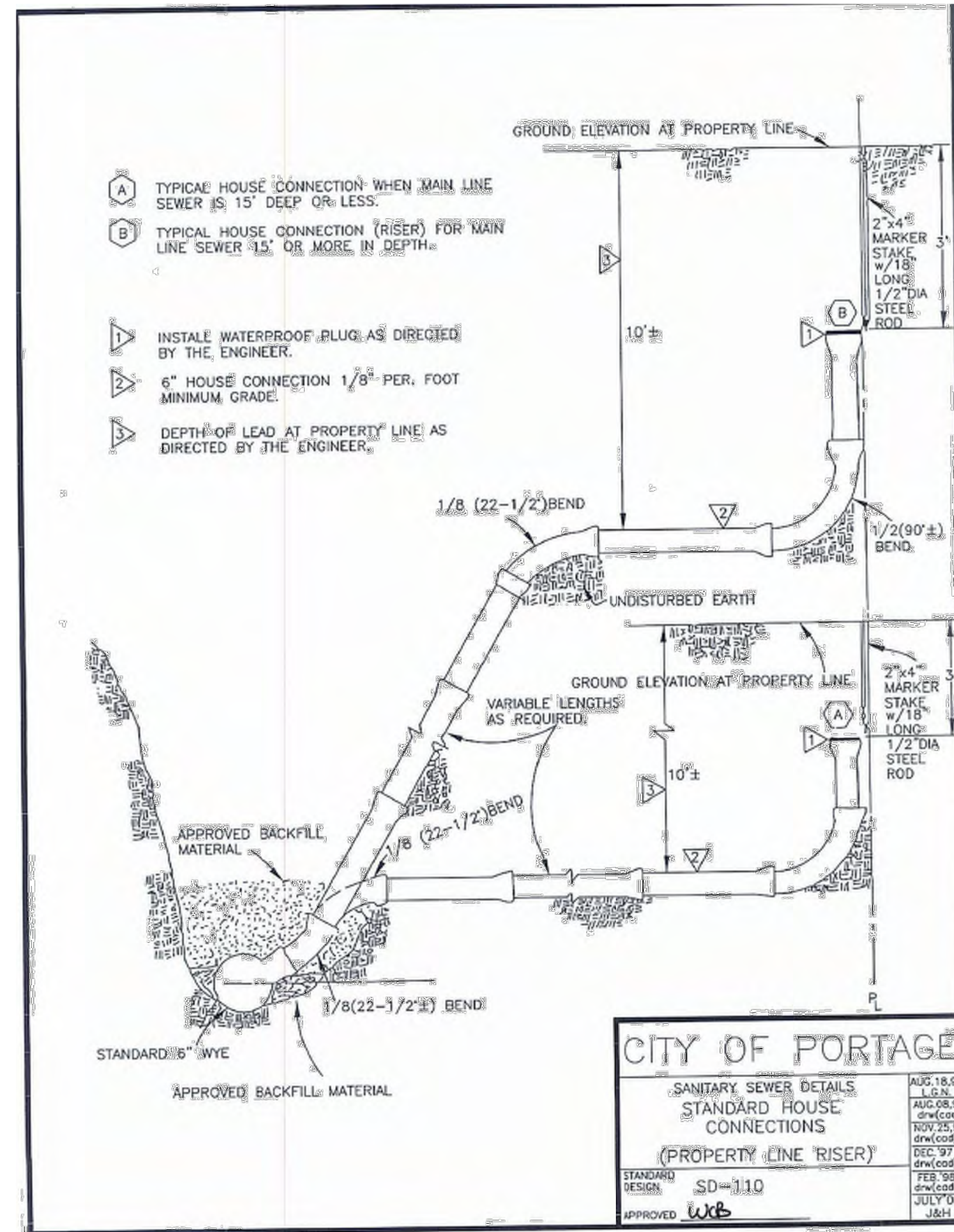
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- ALL WATER MAINS AND THEIR APPURTENANCES SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF PORTAGE SPECIFICATIONS AND AWWA STANDARD C600.
- WATER MAIN FLUSHING SHALL PROVIDE A MINIMUM WATER VELOCITY OF 3.0 FEET PER SECOND IN ACCORDANCE WITH AWWA STANDARD C651.
- ALL WATER MAIN SHALL BE POLY WRAPPED. THE PLY WRAP SHALL CONFORM TO AWWA STANDARD C105.
- ALL SANITARY SEWERS AND THEIR APPURTENANCES SHALL BE IN ACCORDANCE WITH THE CITY OF PORTAGE SPECIFICATIONS.
- ALL STORM SEWER SHALL BE INSTALLED IN ACCORDANCE WITH CITY OF PORTAGE SPECIFICATIONS.
- STORM SEWERS SHALL BE REINFORCED CONCRETE PIPE (RCP), ASTM C76-III OR SOLID WALL ADS N-12 RIGID PIPE MEETING AASHTO M-294, TYPE S, OR APPROVED EQUAL INSTALLED PER THE REQUIREMENTS OF MDOT AND THE CITY OF PORTAGE. USE CONCRETE PIPE WHERE PIPE DIAMETER IS 30" OR LARGER.
- THE CONTRACTOR SHALL INSTALL PEDESTRIAN FENCE AROUND ALL EXCAVATIONS TO BE LEFT OPEN OVERNIGHT AS REQUIRED.
- ANY UTILITIES REQUIRING DEWATERING SHALL BE INSTALLED TO THE CITY OF PORTAGE STANDARDS AND INCLUDED IN THE INSTALLATION COSTS. CONTRACTOR IS RESPONSIBLE FOR ALL DEWATERING NECESSARY TO CONSTRUCT UTILITIES IN THE DRY.
- IF ANY ERRORS, DISCREPANCIES, OR OMISSIONS BECOME APPARENT, THESE SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION OF ANYTHING AFFECTED SO THAT CLARIFICATION OR REDESIGN MAY OCCUR.
- DEWATERING MAY BE REQUIRED TO INSTALL OR REMOVE SOME UTILITIES. REFER TO SPECIFICATIONS FOR SPECIFIC REQUIREMENTS.
- REMOVE ANY ACCUMULATED SEDIMENT FROM ALL STRUCTURES AND REMOVE SILT SACKS ONCE SITE IS ESTABLISHED.
- PROVIDE 18" WATER MAIN SEPARATION WHEN CROSSING OTHER UTILITIES. DEFLECT PER DETAIL ON SHEET C 501.
- CONTRACTOR TO CLEAN THE EXISTING STORM SEWER FROM COULTER TO MANHATTAN AND TO VIDEO THE EXISTING STORM SEWER AFTER THE STORM SEWER HAS BEEN CLEANED. TO BE CONSIDERED INCIDENTAL TO THE PROJECT.
- SANITARY AND WATER LEAD LOCATIONS AND ELEVATIONS ARE SHOWN BASED ON CITY LEAD CARDS AND RECORD DATA. THE CONTRACTOR SHALL EXCAVATE ALL LEADS TO LOCATE AND VERIFY THIS INFO PRIOR TO ANY MASS EXCAVATION OR TEMPORARY SEWER CONSTRUCTION. PROVIDE FIELD GATHERED LEAD INFORMATION TO THE ENGINEER FOR DESIGN VERIFICATION.



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 FIELD WORK PERFORMED BY:
 DRIESENKA & ASSOCIATES, LLC



ISSUED FOR DATE

PROJECT TITLE
 BID PACKAGE 3: HAVERHILL ELEMENTARY
 PLAYGROUND RELOCATION AND EARLY
 SITE PACKAGE

OWNER
 PORTAGE PUBLIC SCHOOLS

Portage, Michigan

SHEET TITLE
 SANITARY DETAILS

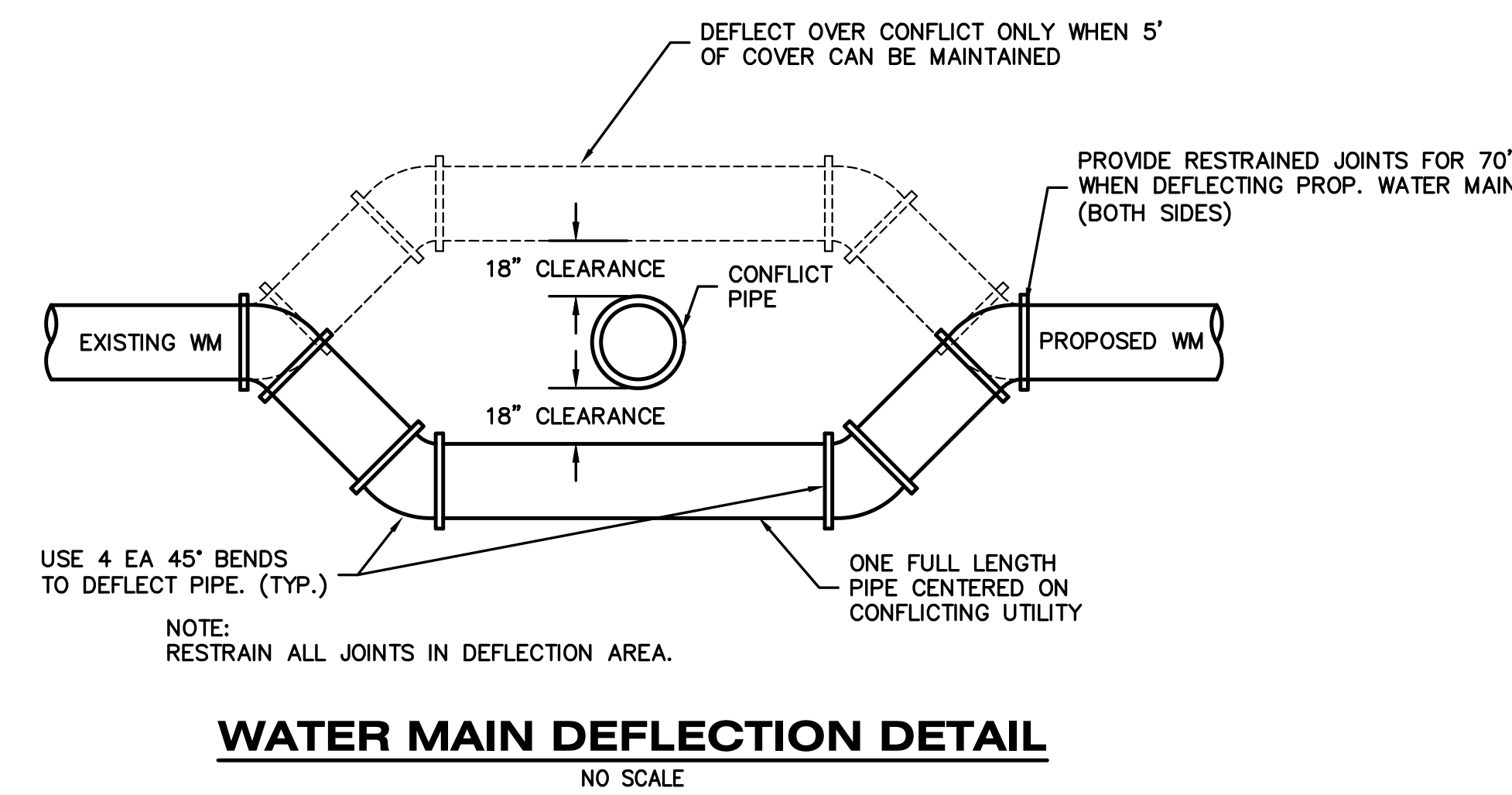
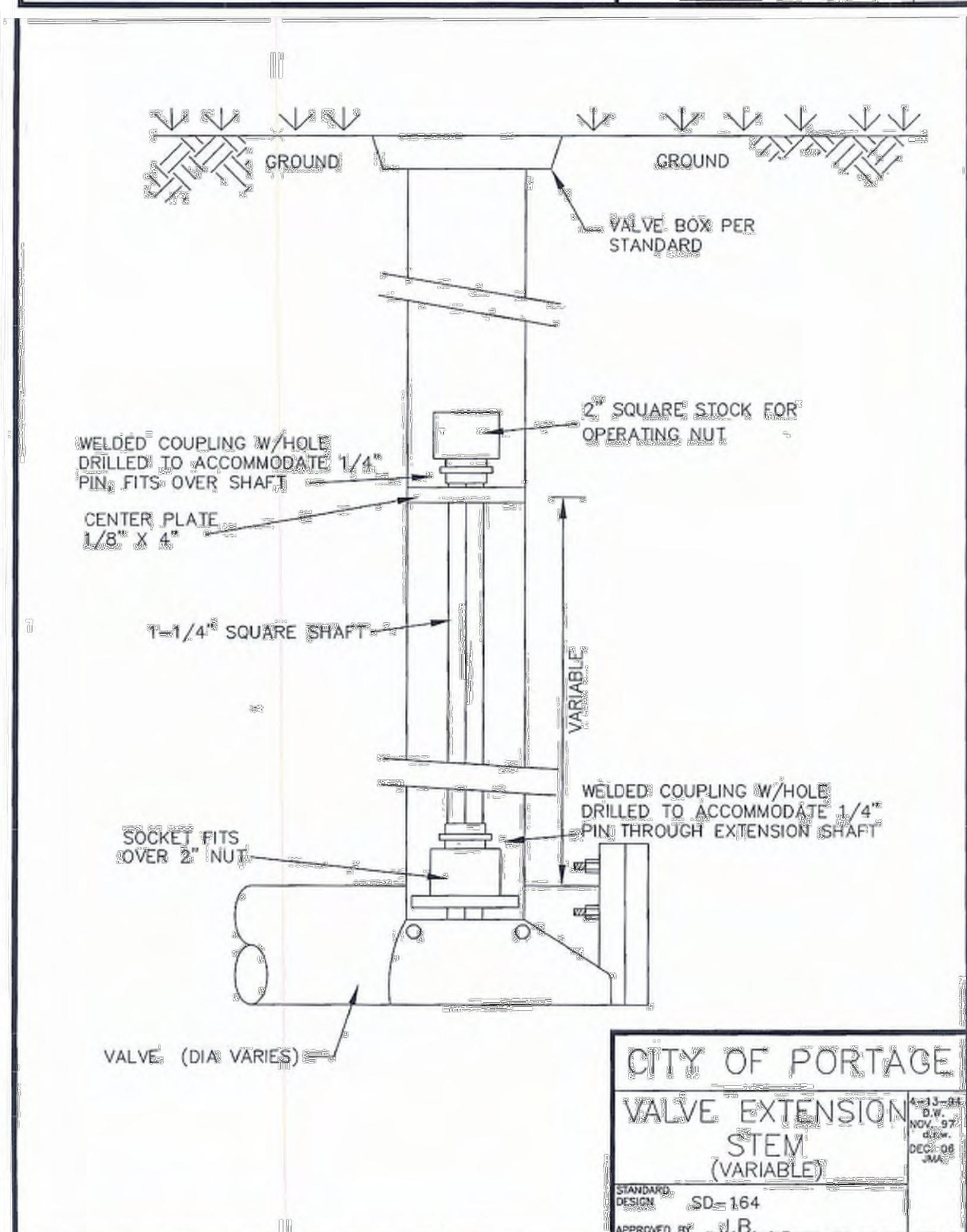
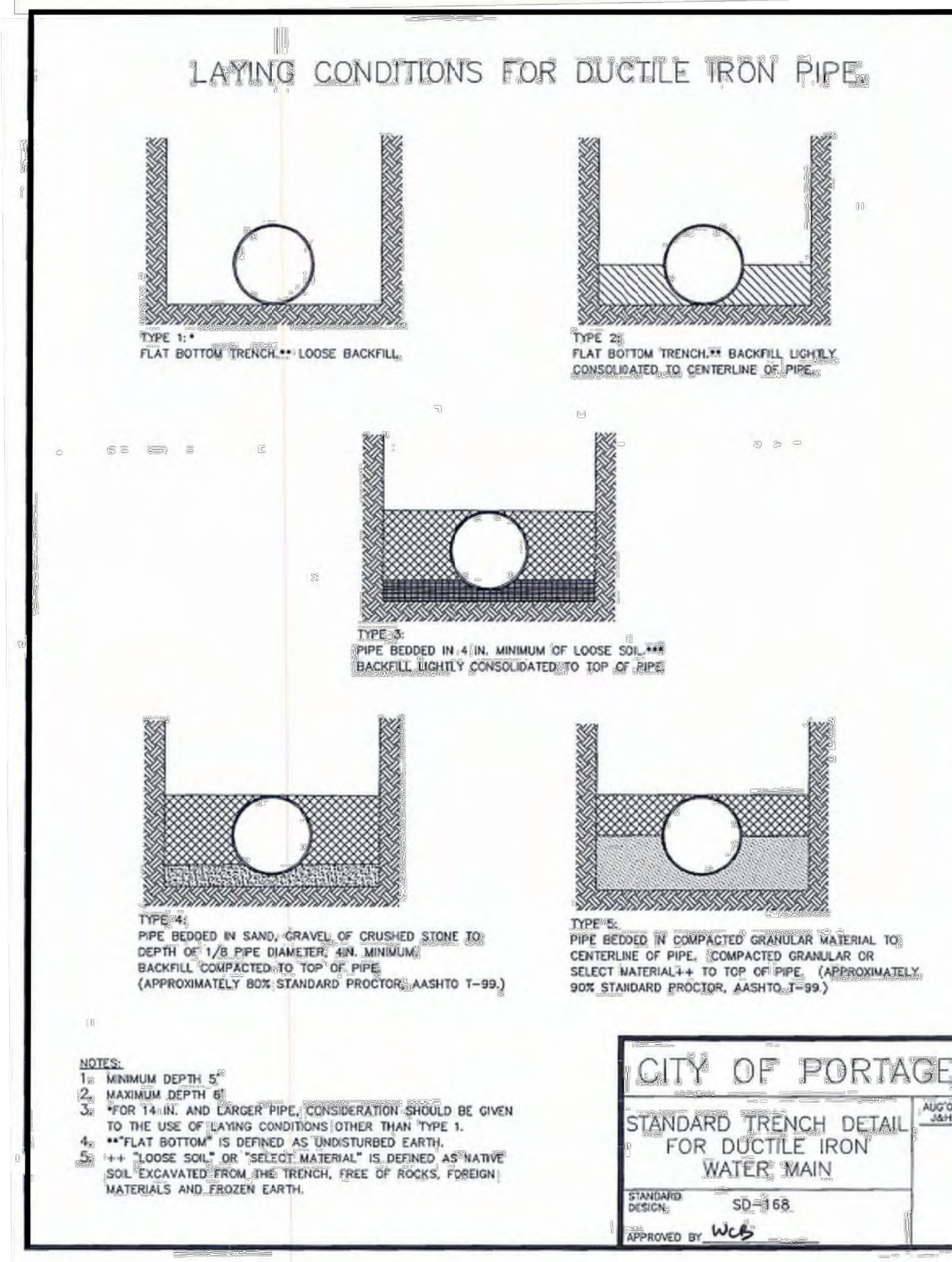
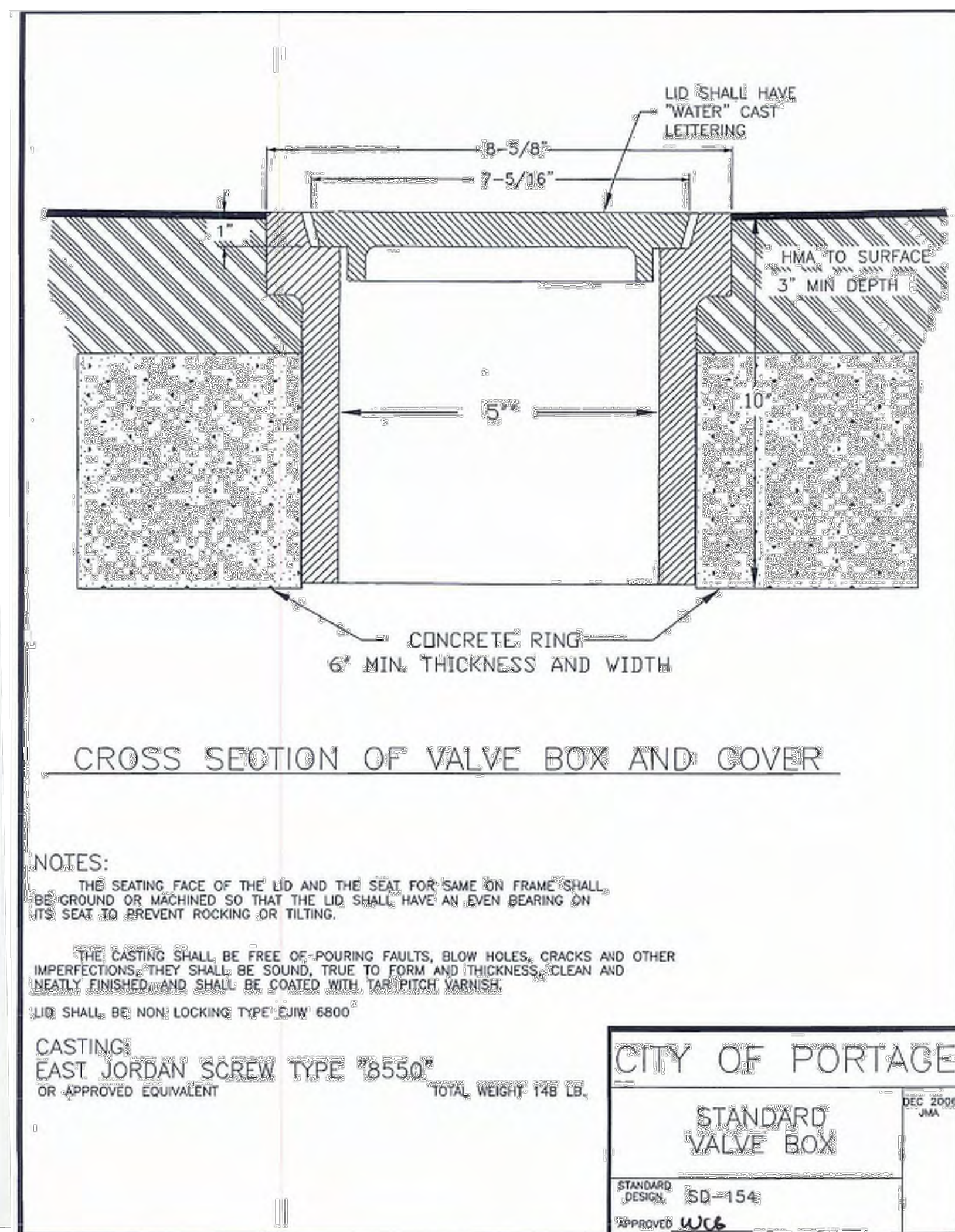
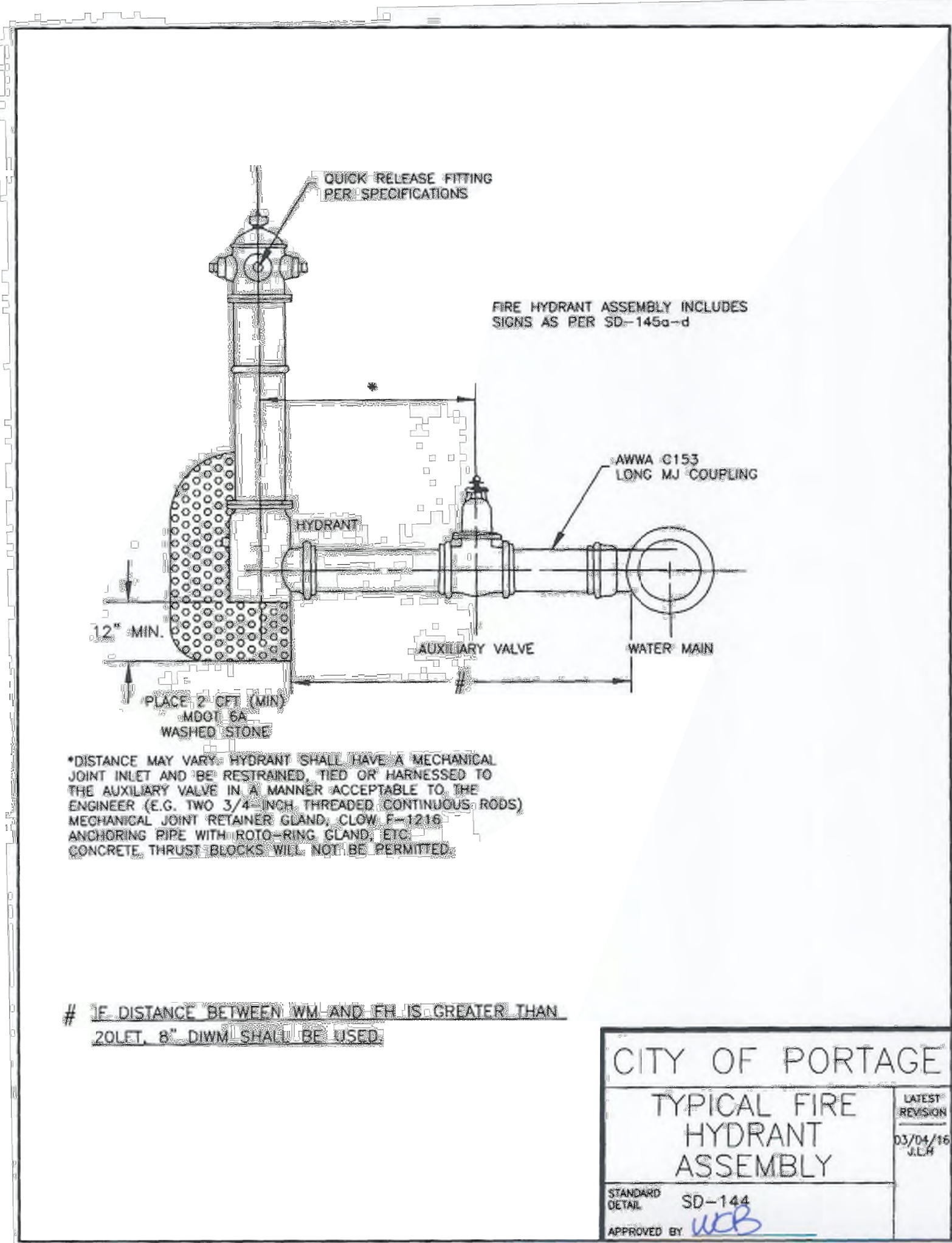
DATE
 DECEMBER 16, 2022

SHEET NUMBER
 C 500

21-237.22



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ISSUED FOR DATE

PROJECT TITLE
**BID PACKAGE 3: HAVERHILL ELEMENTARY
 PLAYGROUND RELOCATION AND EARLY
 SITE PACKAGE**

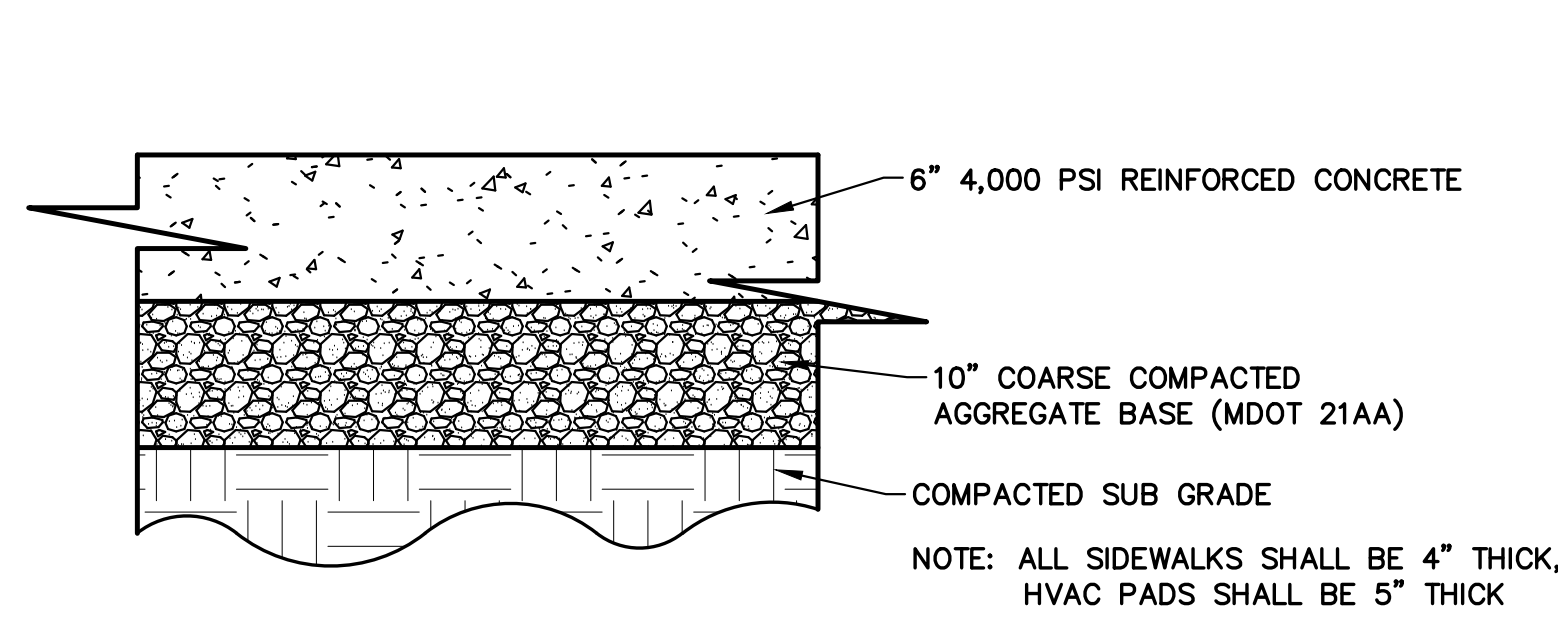
OWNER
PORTAGE PUBLIC SCHOOLS

Portage, Michigan

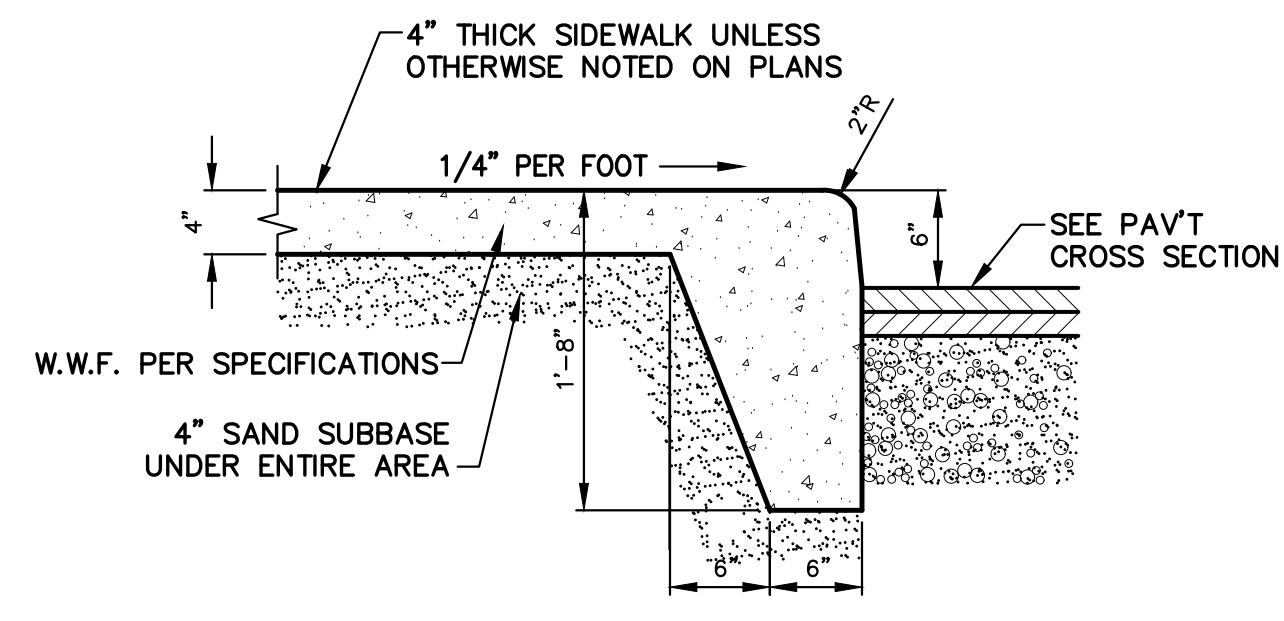
DATE
DECEMBER 16, 2022

SHEET TITLE
SITE DETAILS

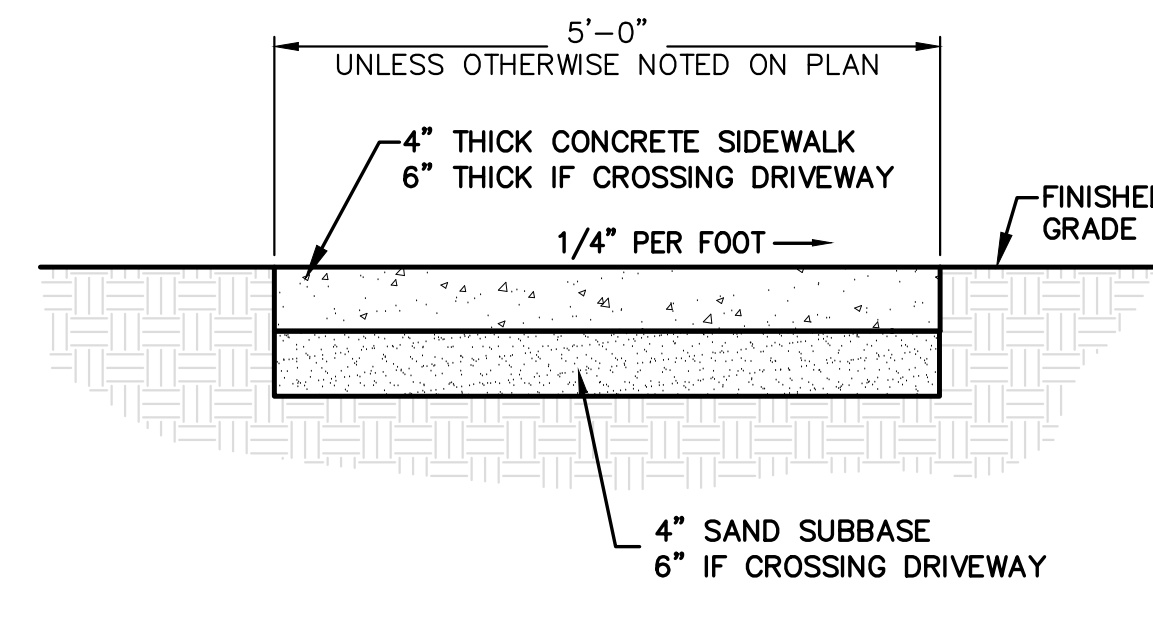
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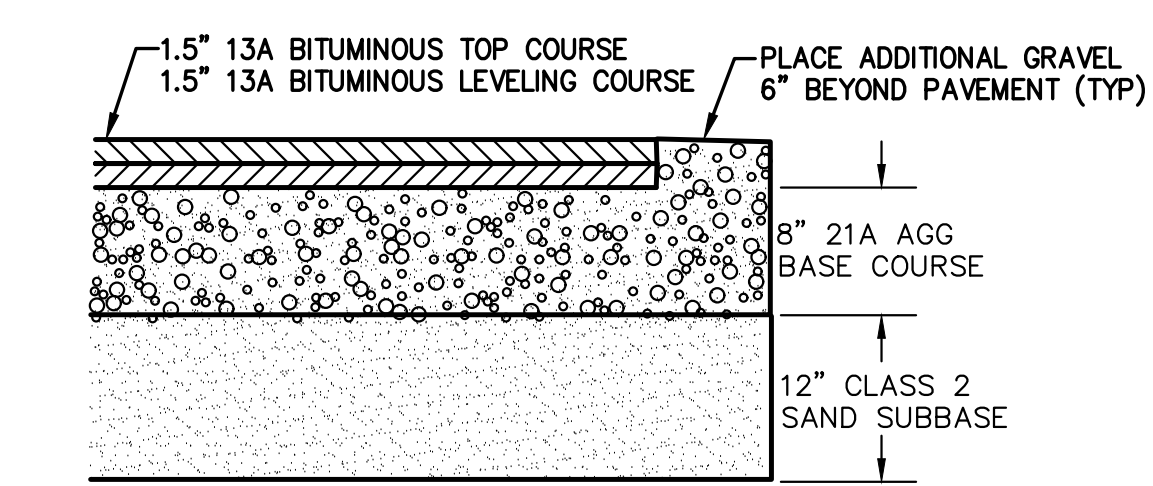
HEAVY DUTY CONCRETE SECTION
 NOT TO SCALE



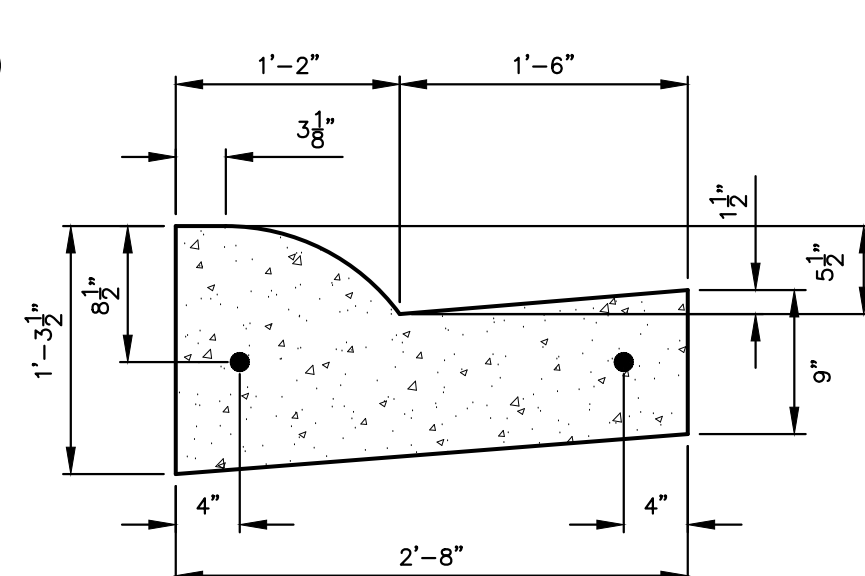
INTEGRAL SIDEWALK/CURB
 NOT TO SCALE



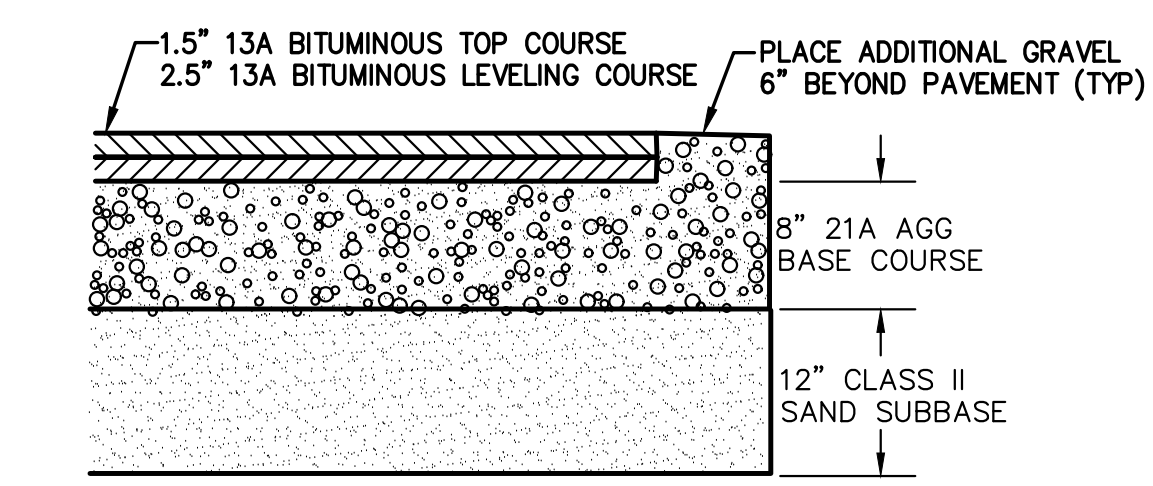
SIDEWALK DETAIL
 NOT TO SCALE



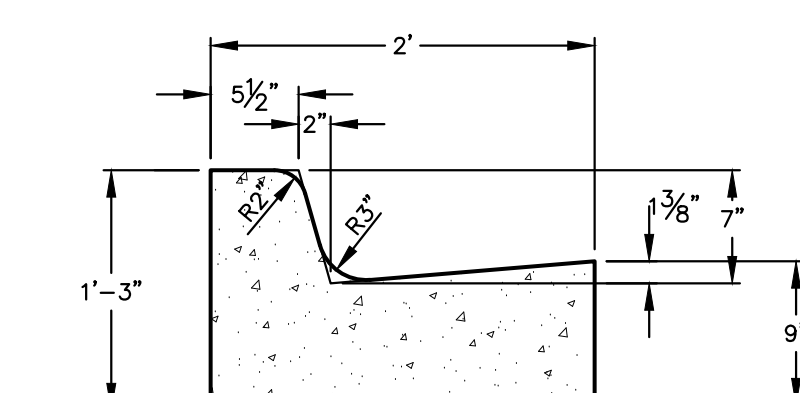
LIGHT DUTY PAVEMENT SECTION
 NOT TO SCALE



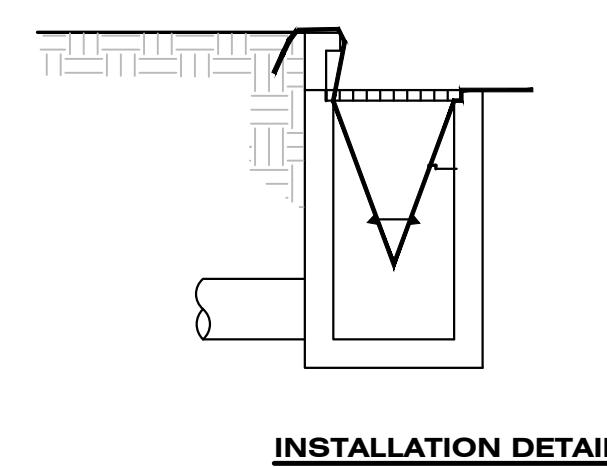
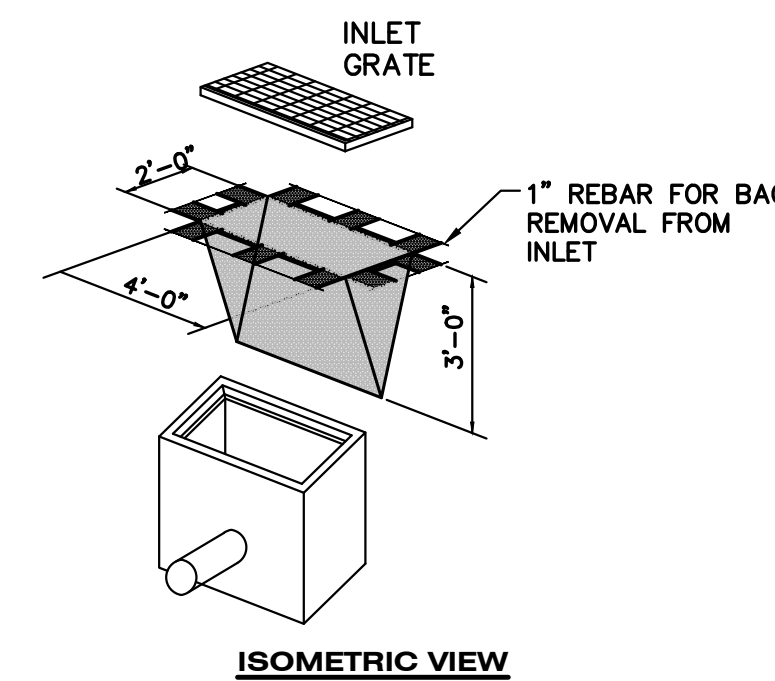
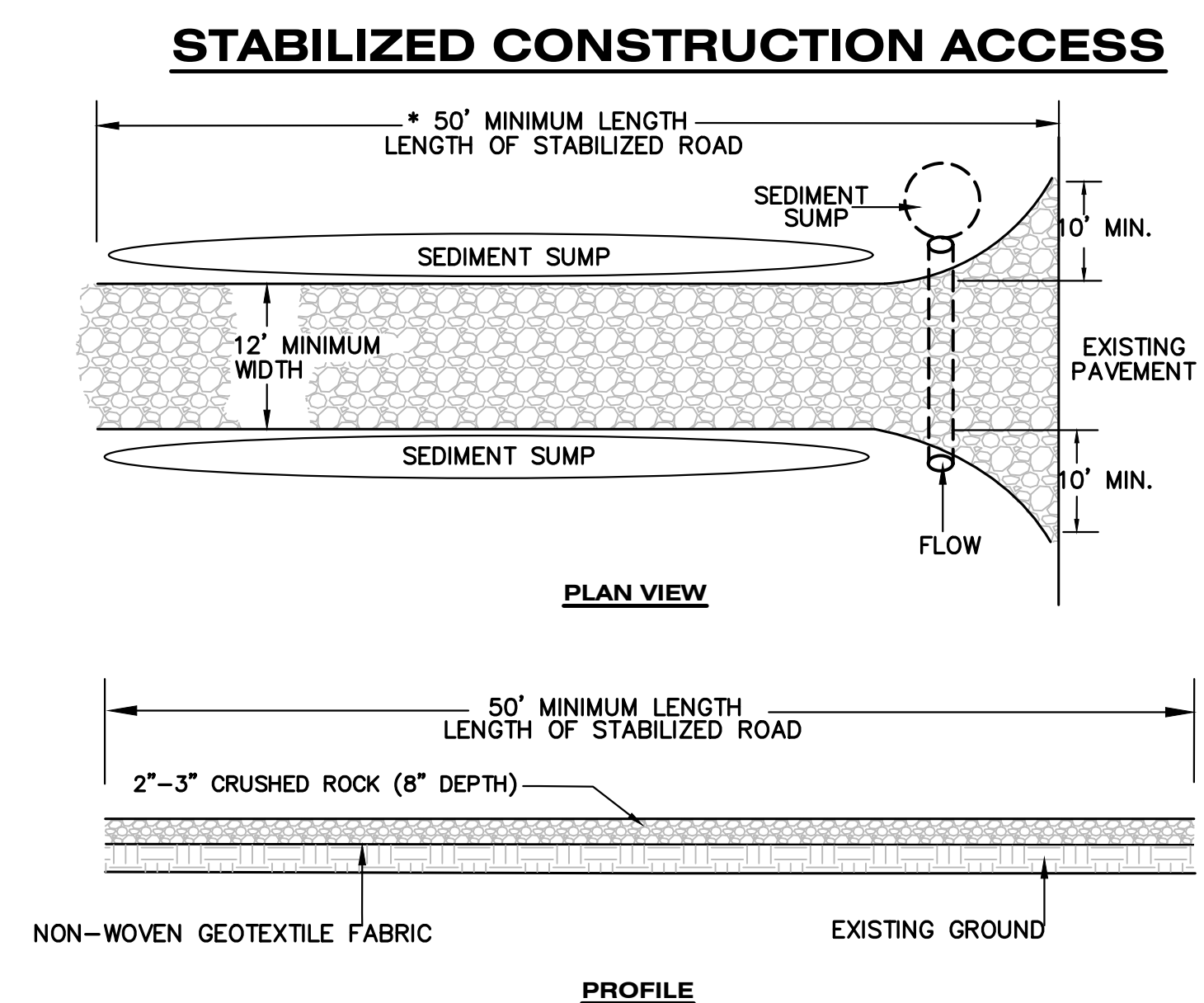
ROLLED CURB DETAIL
 NOT TO SCALE



HEAVY DUTY PAVEMENT SECTION
 NOT TO SCALE



"C4" CURB DETAIL
 NOT TO SCALE



INLET PROTECTION FABRIC DROP

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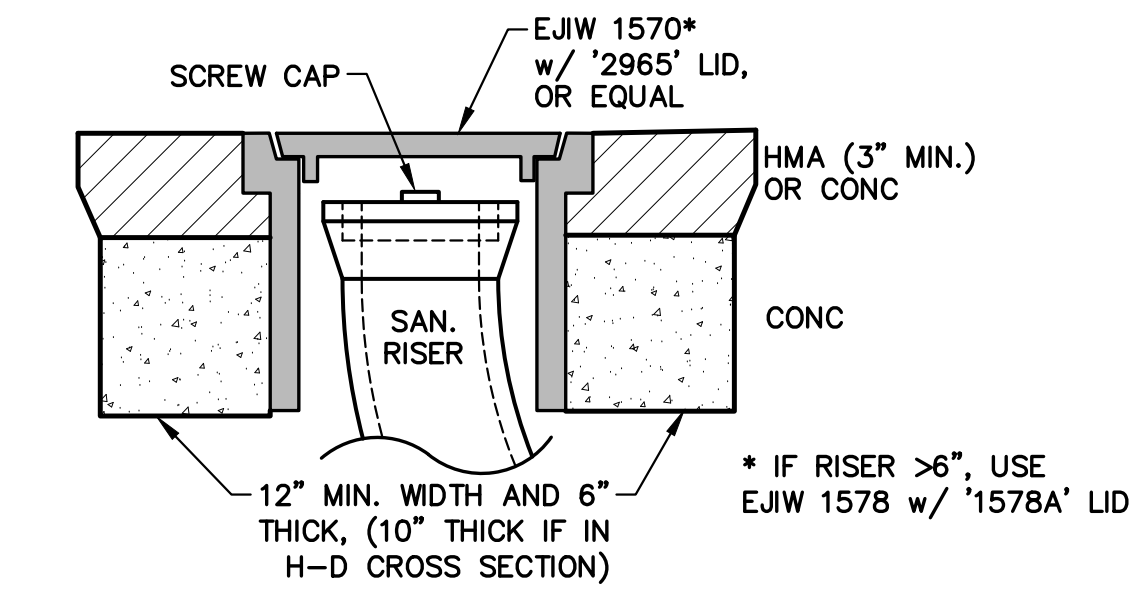
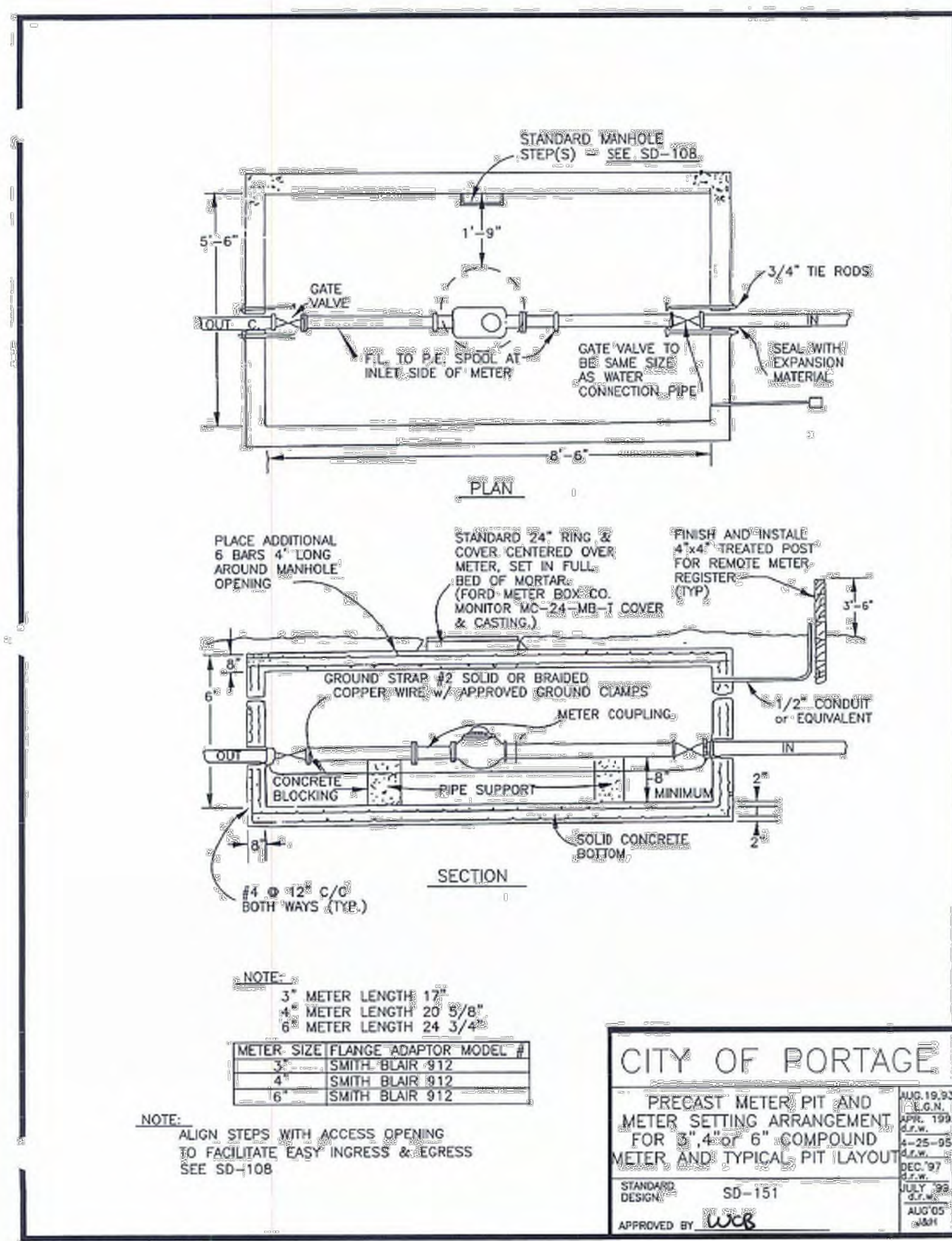
OWNER
PORTAGE PUBLIC SCHOOLS

Portage, Michigan

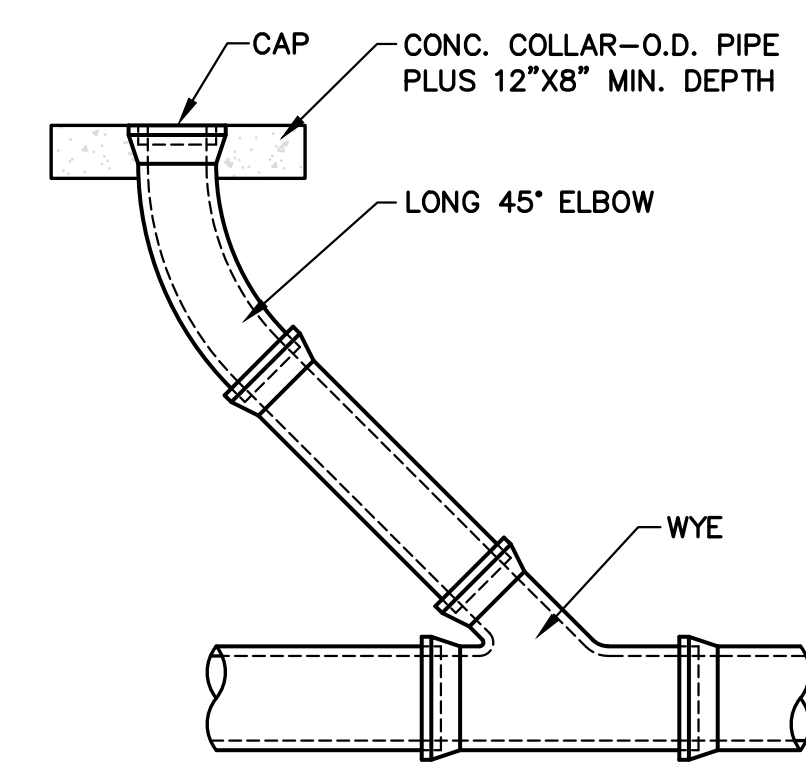
DATE
DECEMBER 16, 2022

SHEET TITLE
UTILITY DETAILS

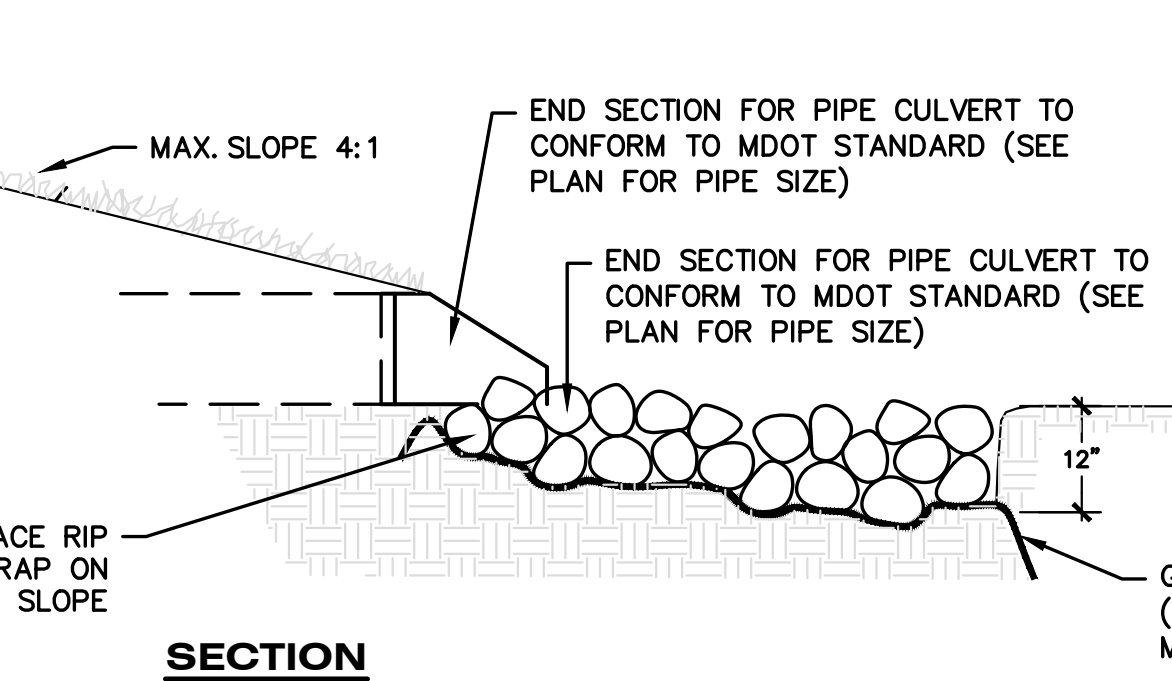
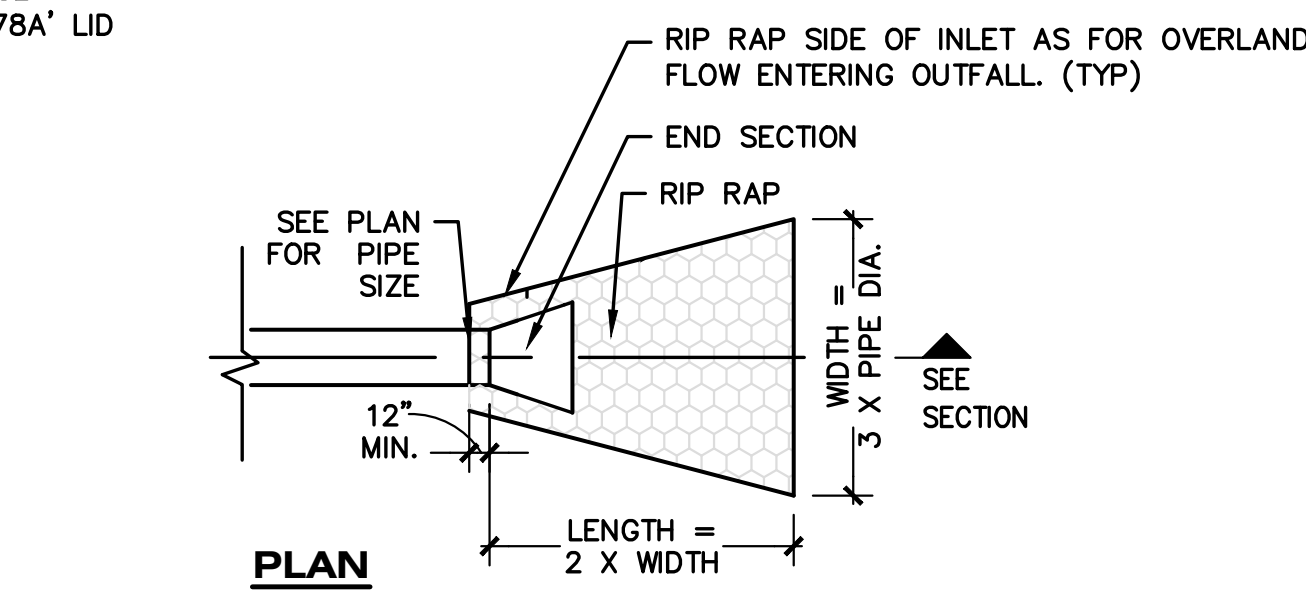
SHEET NUMBER
C 504
 21-237.22



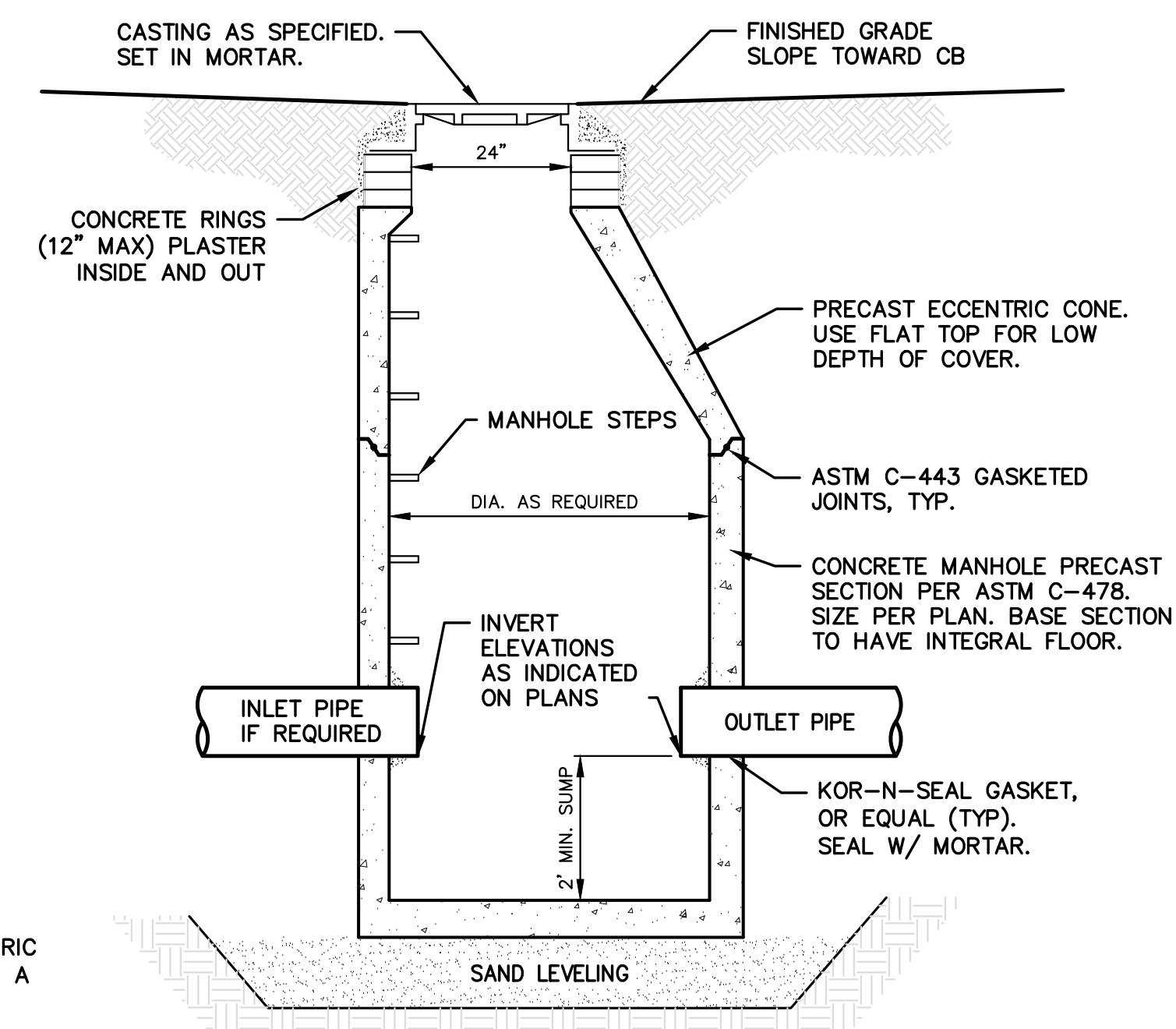
CLEANOUT IN PAVEMENT/CONC AREA
 NO SCALE



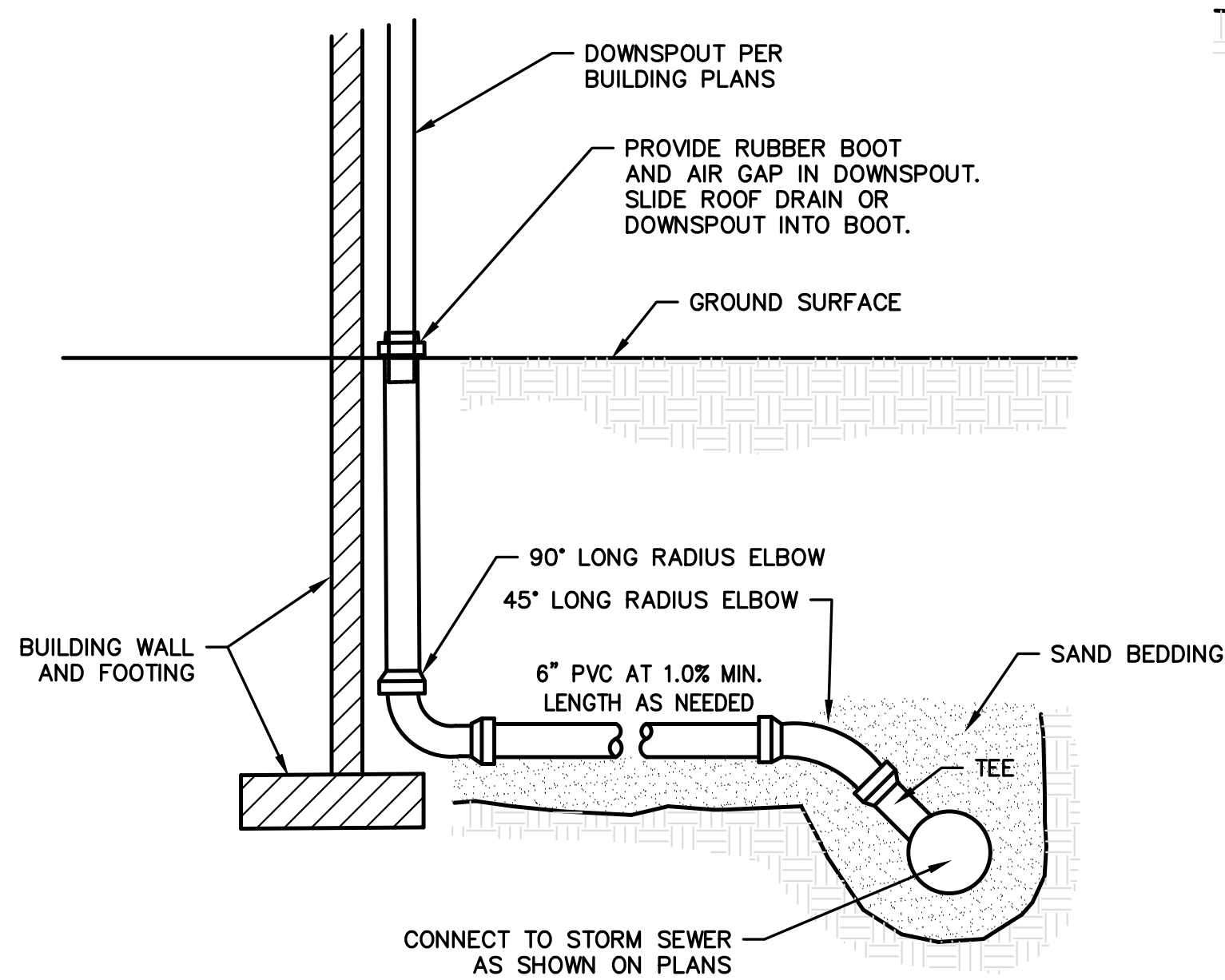
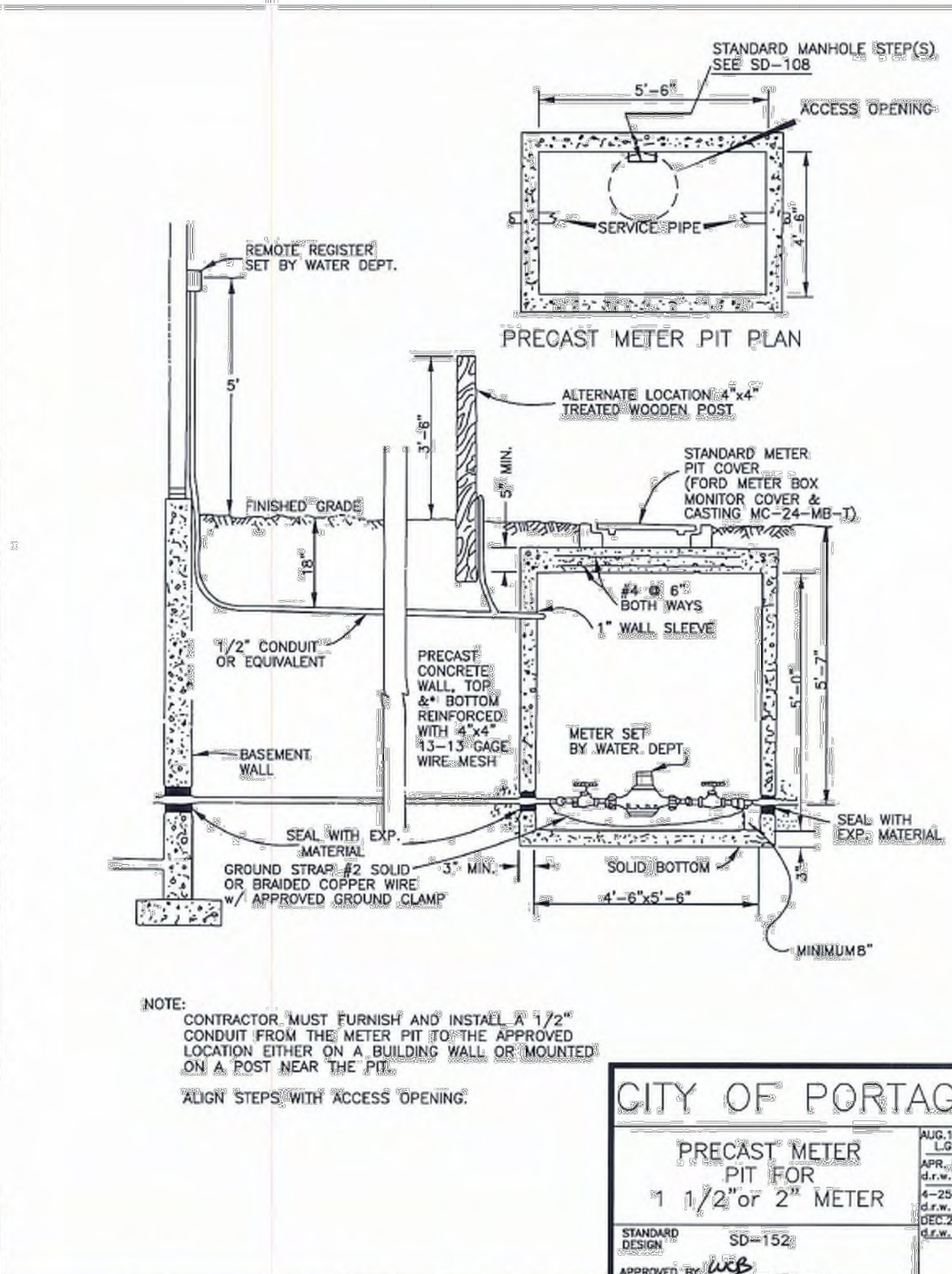
SANITARY CLEANOUT DETAIL
 NO SCALE



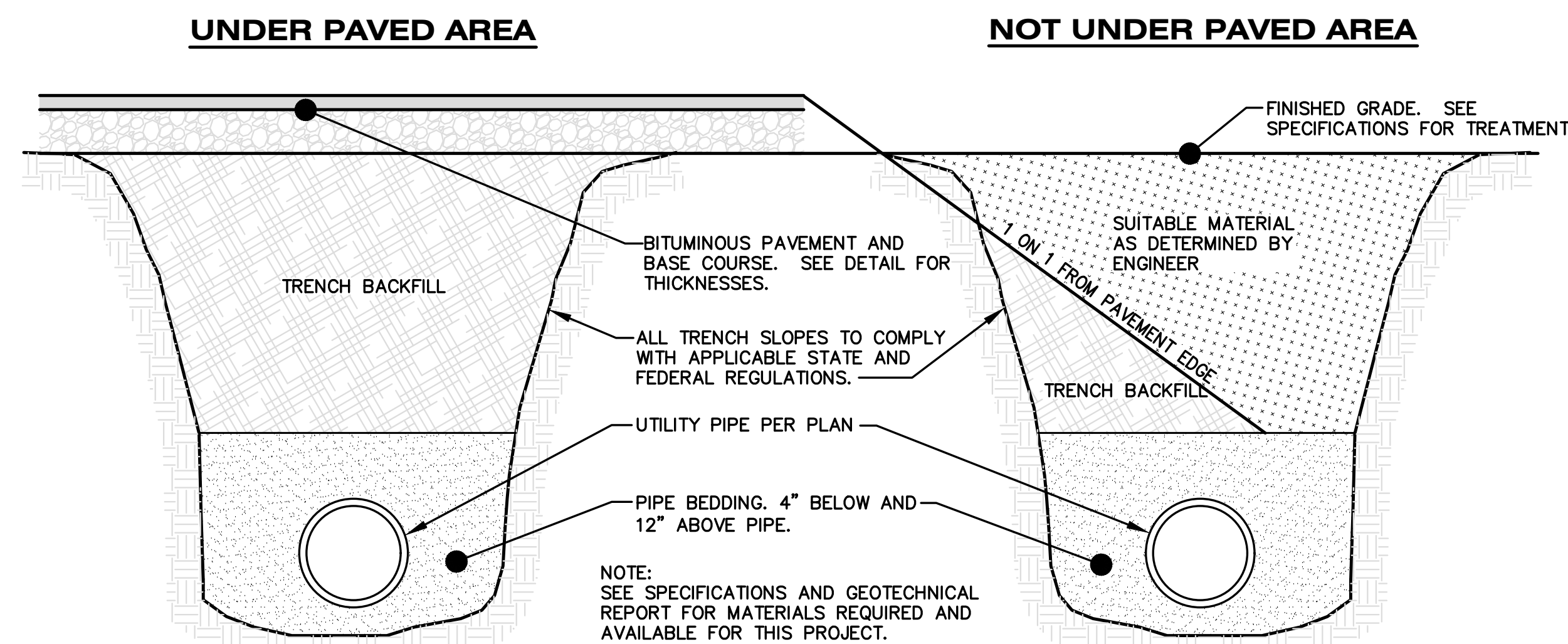
PIPE CULVERT WITH FLARED END SECTION DETAIL
 NO SCALE



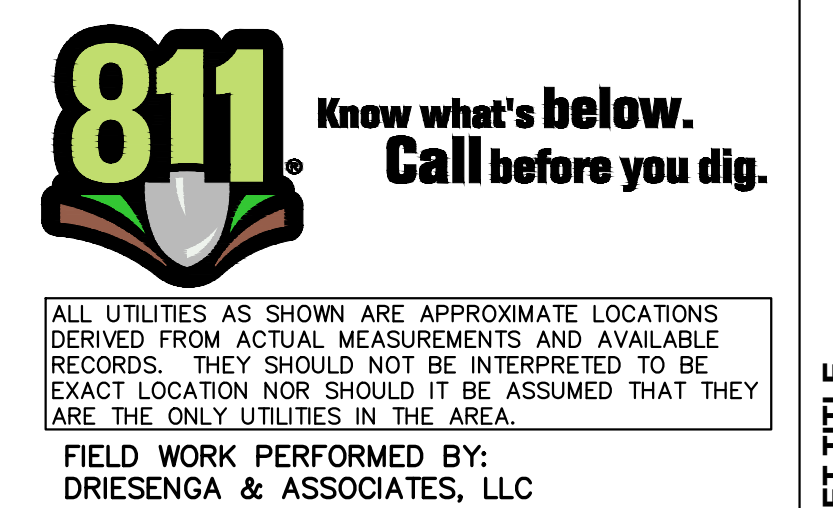
CATCH BASIN DETAIL
 NO SCALE



ROOF LEAD/ DOWNSPOUT DETAIL
 NO SCALE

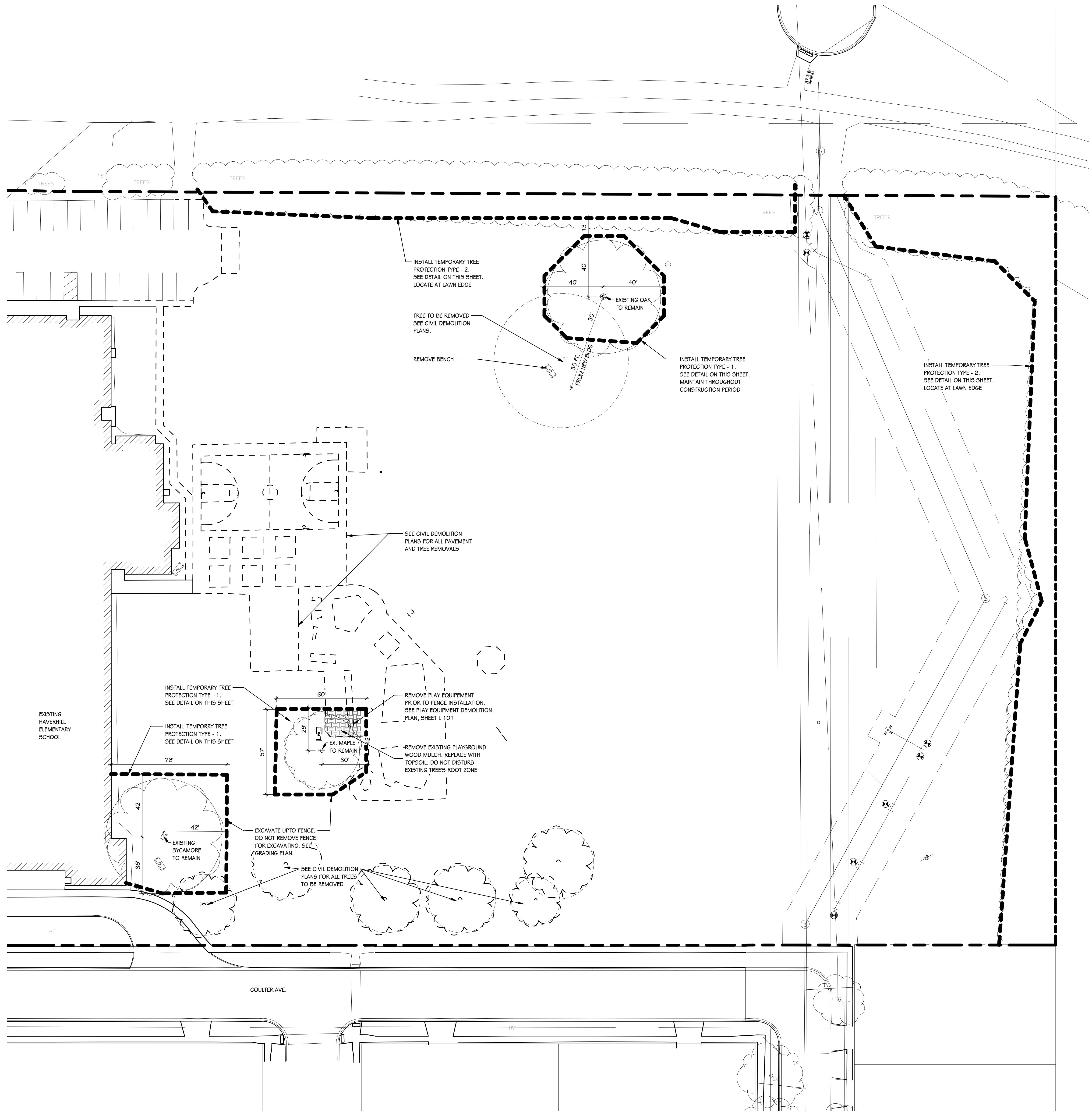


TRENCH DETAILS
 NO SCALE

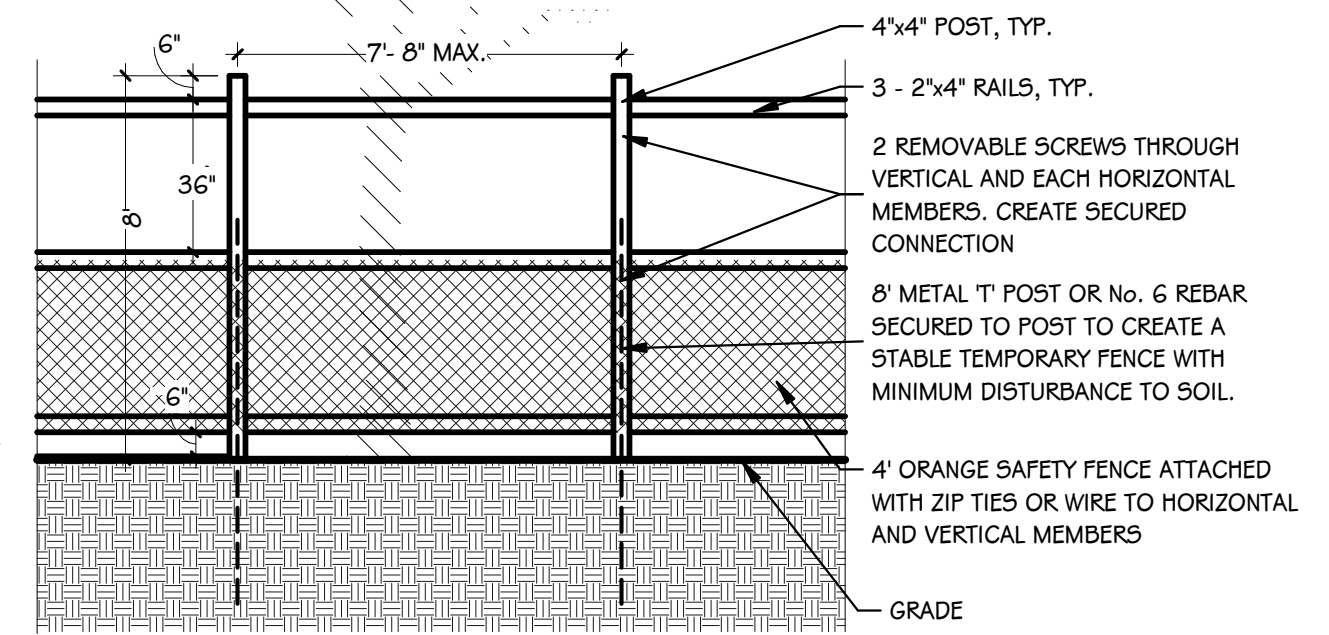


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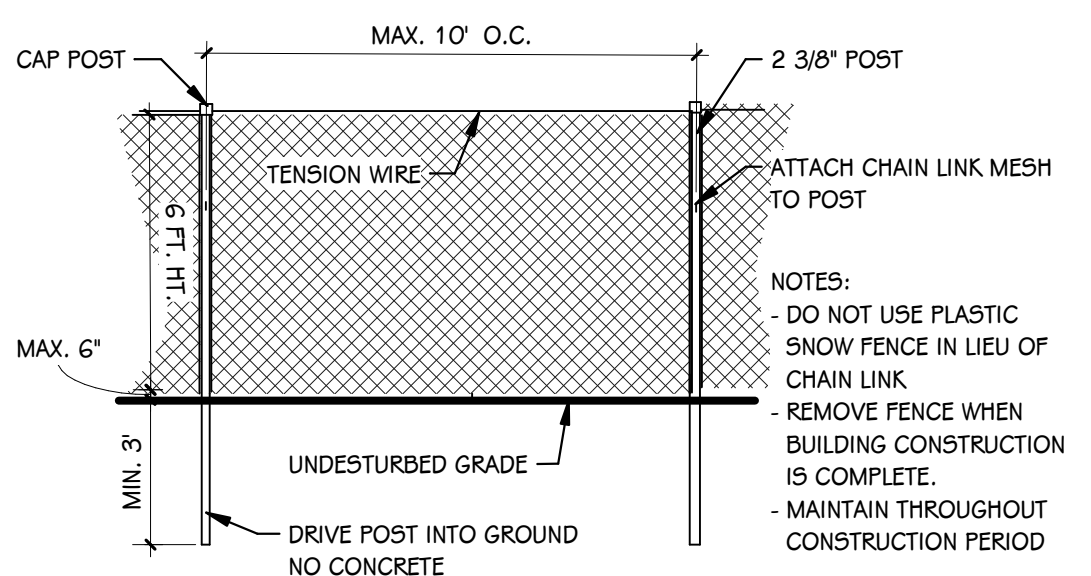
- GENERAL NOTES - DEMO**
- EXISTING INFORMATION SHOWN HEREIN IS APPROXIMATE AND MUST BE FIELD VERIFIED PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY.
 - COORDINATE TREE PROTECTION WITH CIVIL'S DEMOLITION PLANS. PLACE TREE PROTECTION FENCING PRIOR TO STARTING ANY DEMOLITION WORK, UNLESS NOTED OTHERWISE.
 - MAINTAIN TREE PROTECTION FENCING THROUGHOUT CONSTRUCTION PERIOD. IMMEDIATELY REPAIR ANY DAMAGED OR SAGGING FENCING. DO NOT ALLOW CONSTRUCTION TO ACCESS AREAS BEYOND / WITHIN TREE PROTECTION AREAS.
 - PROTECT ALL AREA TO REMAIN FROM DAMAGE.



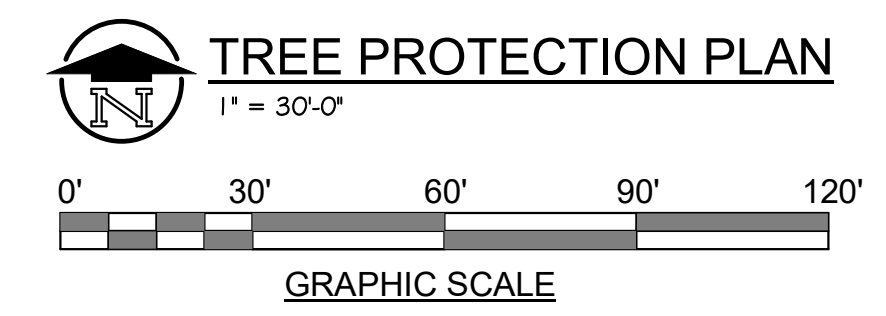
NOTES: TREE PROTECTION BARRICADES SHALL BE ERRECTED AT/ BEYOND THE ROOT ZONE. FENCING TO BE INSTALLED PRIOR TO SET-UP FOR CONSTRUCTION. NO CONSTRUCTION EQUIPMENT OR MATERIALS TO BE PLACED INSIDE TREE PROTECTION AREA. MAINTAIN TEMPORARY FENCE THROUGHOUT CONSTRUCTION PROJECT. REMOVE FENCE AT END OF FINAL CONSTRUCTION. RESTORE ALL DISTURBED AREAS AFTER FENCE REMOVAL.

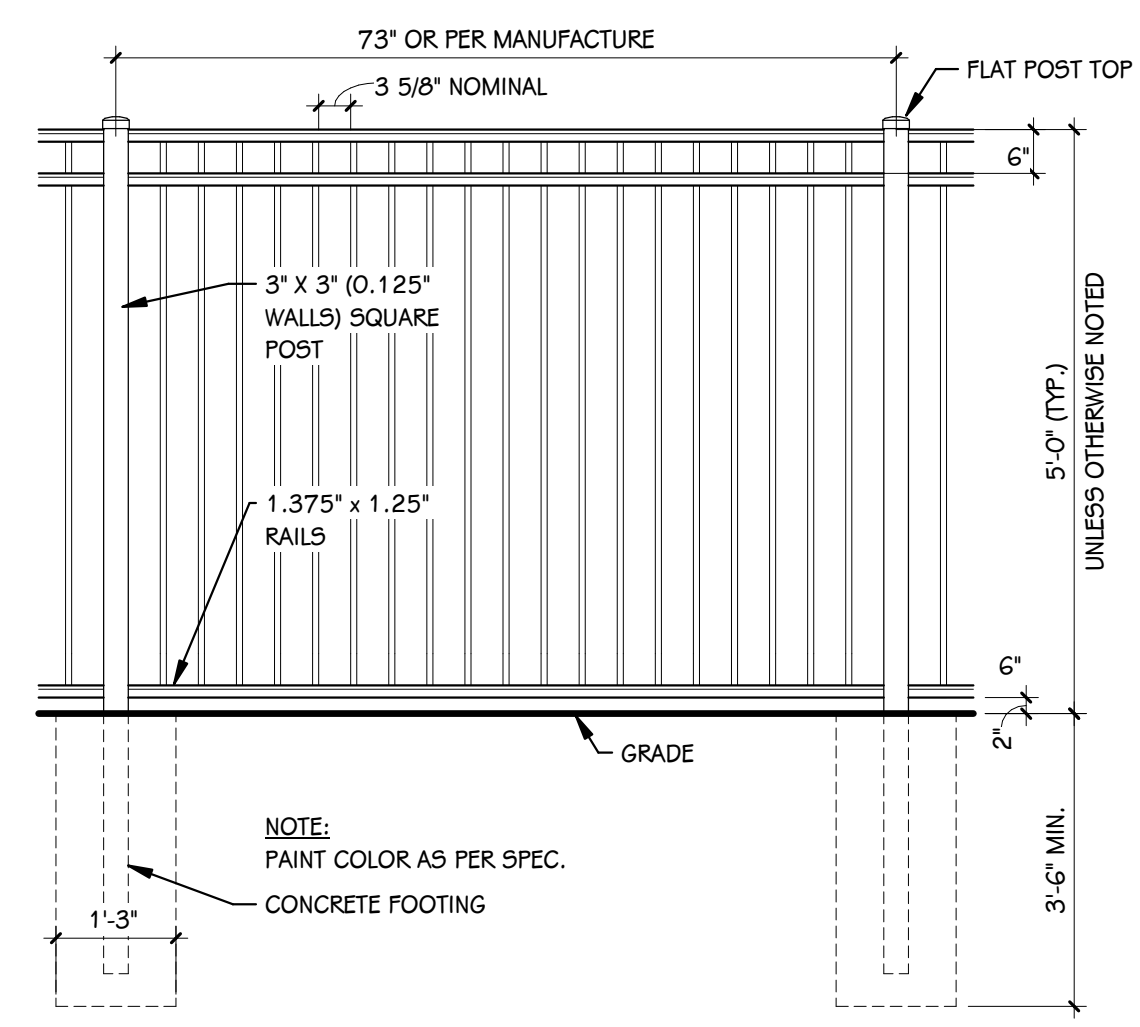


TREE PROTECTION TYPE-1 FENCE DETAIL
1/4" = 1'-0"

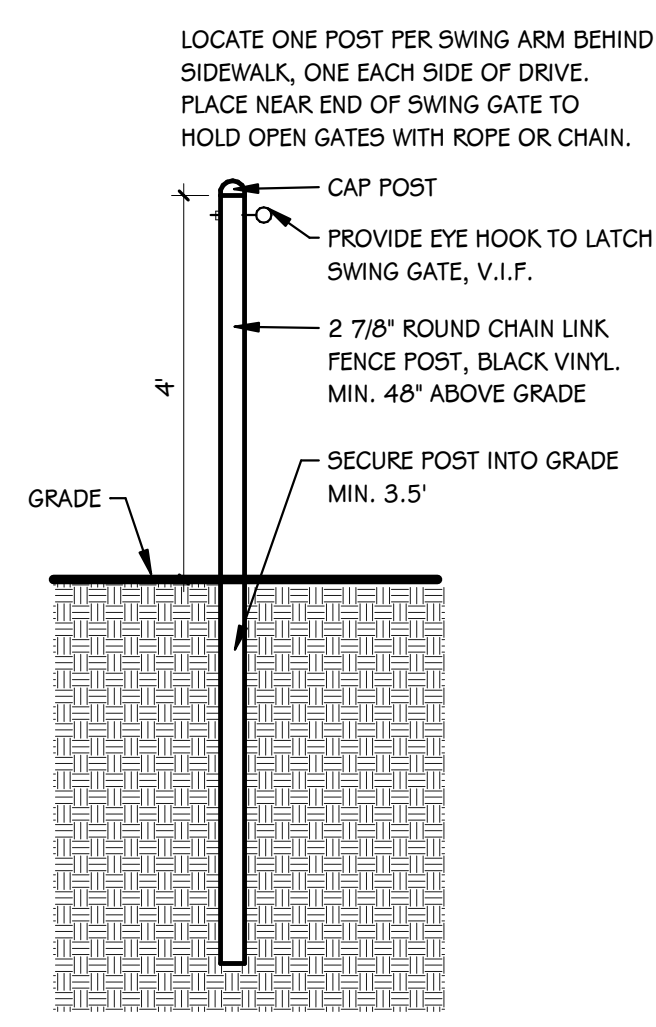


TREE PROTECTION TYPE - 2 FENCE DETAIL
1/4" = 1'-0"

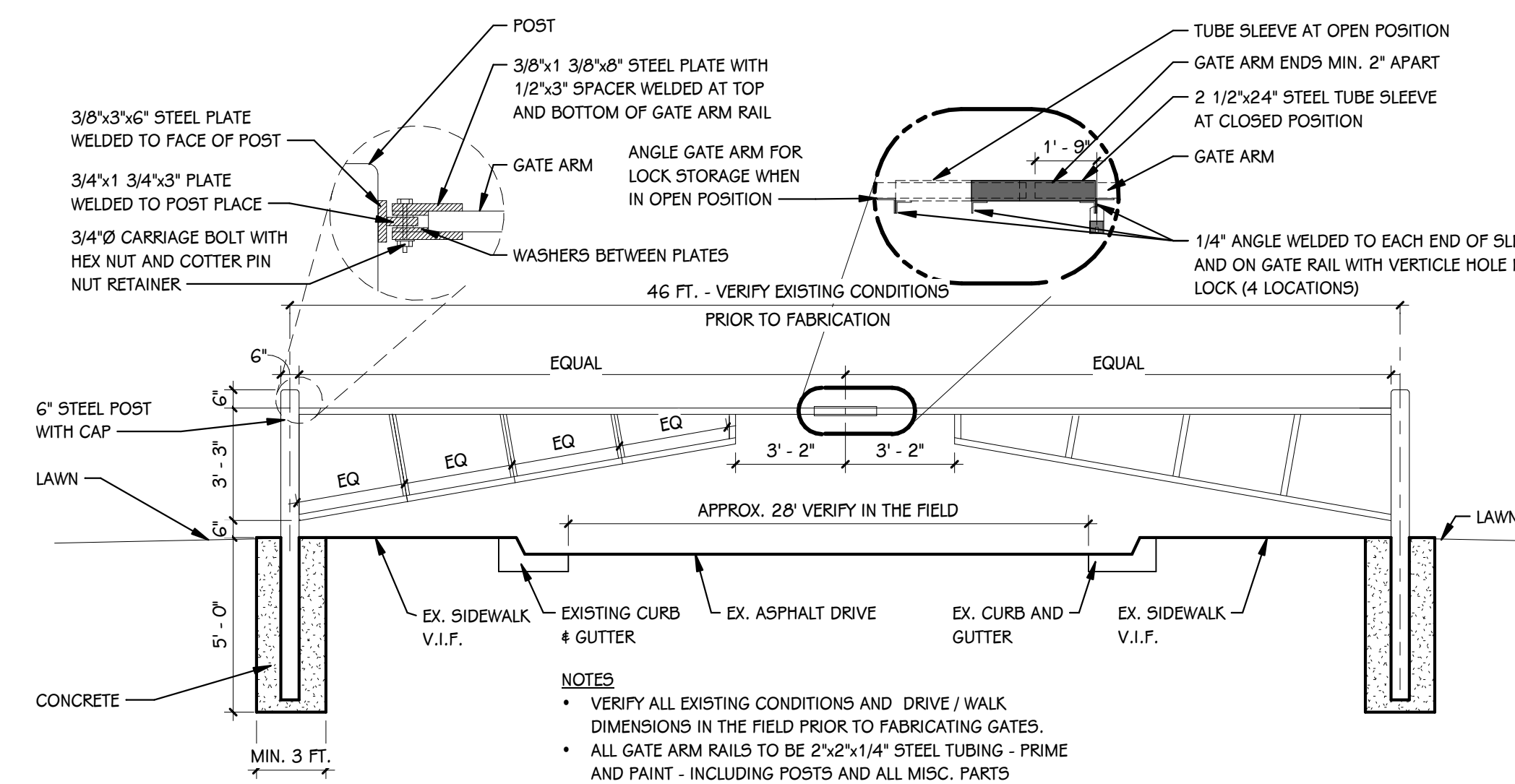




ORNAMENTAL FENCING DETAIL
1/2" = 1'-0"



SWING GATE LATCH POST DETAIL
1/2" = 1'-0"



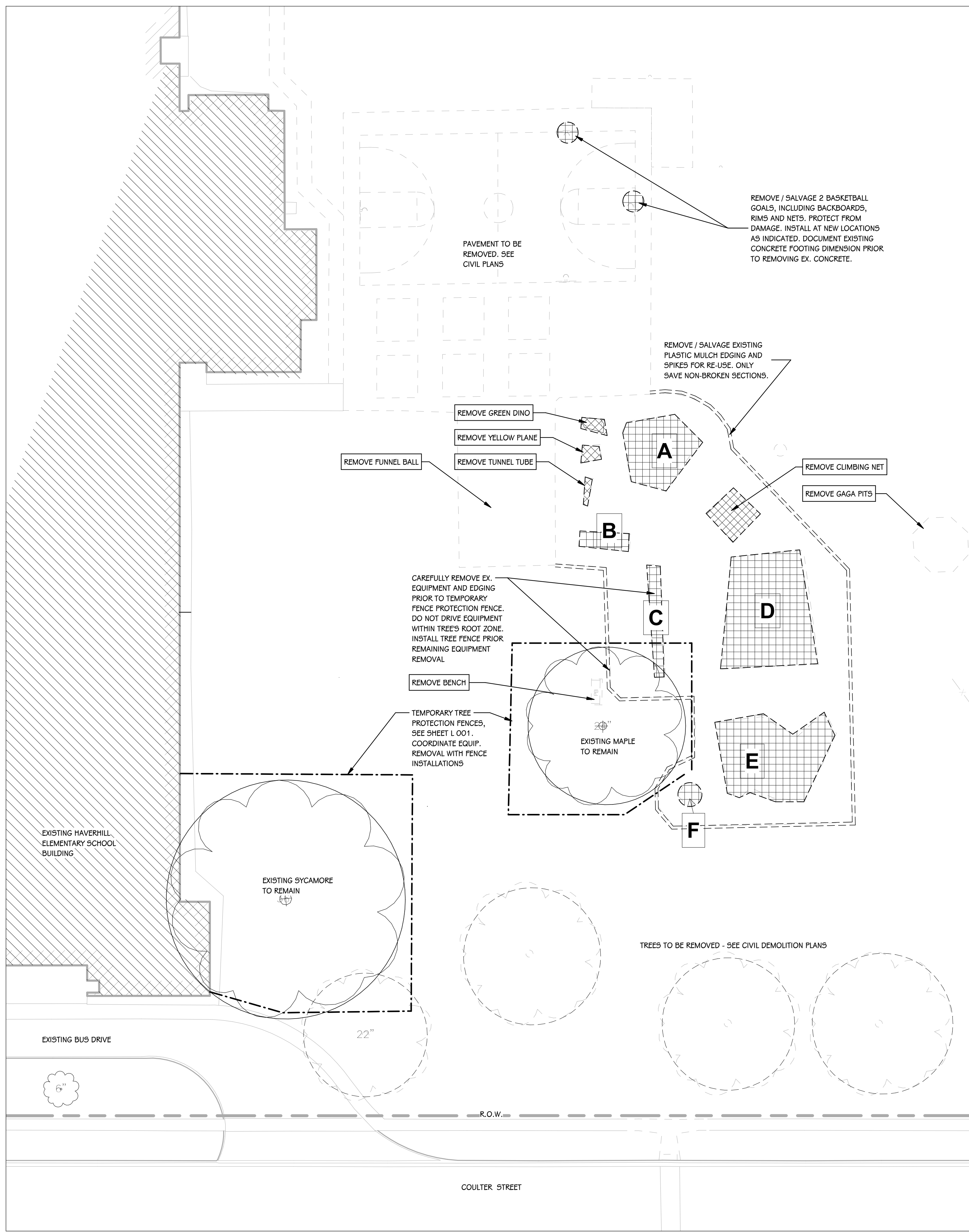
SWING ARM GATE DETAIL
1/4" = 1'-0"

NOTES

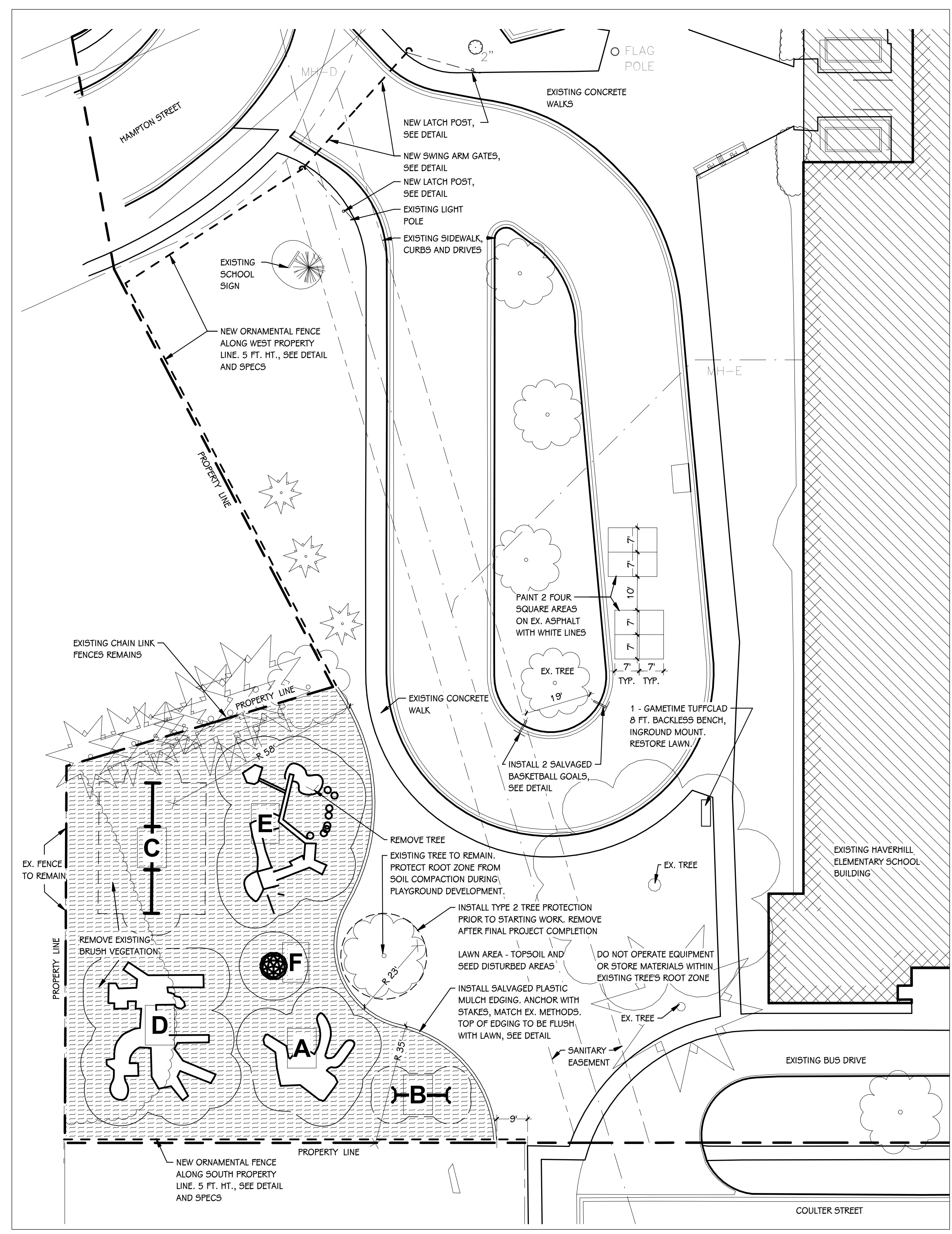
1. REMOVE AND RELOCATE PLAY EQUIPMENT MEETING ALL C.P.S.C. AND ASTM STANDARDS, SEE SPECIFICATIONS. INSTALL CONCRETE FOOTING, MATCHING EXISTING PRE-REMOVAL CONCRETE FOOTING DIMENSIONS.
2. EXISTING PLAY STRUCTURES PLAN GRAPHICS WERE TRACED FROM AERIAL PHOTOS. VERIFY ALL DIMENSIONS AND REQUIRED AREAS FOR EACH EQUIPMENT. ADJUST AS NEEDED. SAFETY FALL ZONES GRAPHICALLY INDICATED ON PLANS. LOCATE ALL EQUIPMENT WITH PROPER SAFETY FALL ZONES MEETING CPSC STANDARDS. CONTACT ARCHITECT OF ANY MAJOR EQUIPMENT LAYOUT ISSUES.
3. TOPSOIL AND SEED ALL DISTURBED AREAS AND RE-GRADED AREAS FROM PROJECT DEVELOPMENT. ESTABLISH LAWN PER SPECIFICATIONS. NO STORM WATER PONDING IS BE ACCEPTED IN ANY AREAS.

LEGEND

- EXISTING PLAY EQUIPMENT TO BE SALVAGED AND RELOCATED. DOCUMENT EXISTING CONCRETE FOOTING DIMENSIONS FOR REFERENCE AT INSTALLATION. DISMANTLE AND PROTECT ALL PIECES FROM DAMAGE. NEW LOCATION TO MATCH EXIST. LABEL ON PLAN.
- NEW ENGINEERED MULCH LOCATION. MULCH TO BE AT 12" DEPTH. SEE DETAIL AND SPECIFICATIONS.



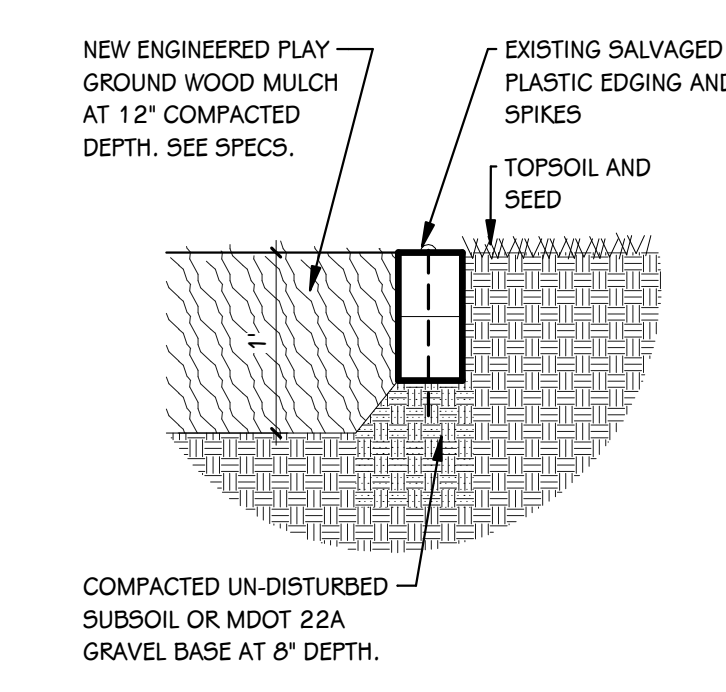
PLAY EQUIPMENT DEMOLITION PLAN
1" = 20'-0"
0' 20' 40' 60' 80'
GRAPHIC SCALE



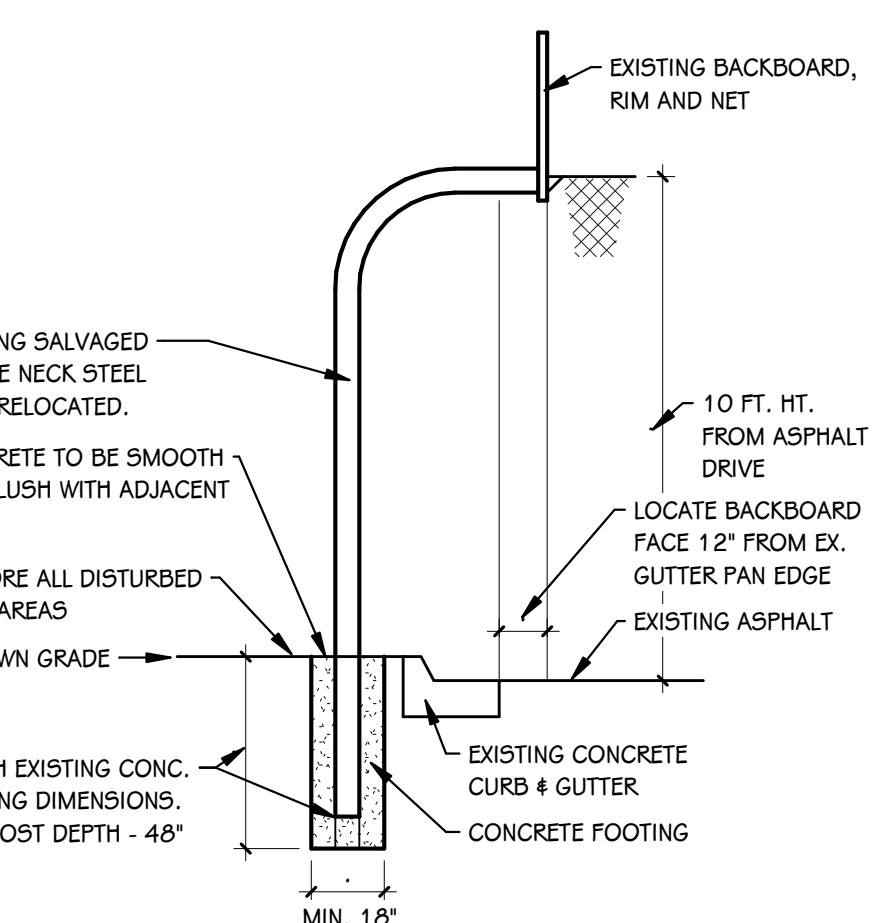
PLAY EQUIPMENT LAYOUT PLAN
1" = 20'-0"
0' 20' 40' 60' 80'
GRAPHIC SCALE

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MULCH EDGE DETAIL
1" = 1'-0"



BASKETBALL GOAL
1/4" = 1'-0"

PROJECT TITLE
**BID PACKAGE 3: HAVERHILL ELEMENTARY
PLAYGROUND RELOCATION AND EARLY
SITE PACKAGE**

OWNER
PORTAGE PUBLIC SCHOOLS

SHEET TITLE
PLAY EQUIPMENT RELOCATION PLAN

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Portage, Michigan

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