

TOWN OF YARROW POINT

KING COUNTY

WASHINGTON

NE 42ND STREET/91ST AVENUE NE STORMWATER & UGC PROJECT

TOWN OFFICIALS

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MARY ELMORE

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ANDY VALAAS

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Town Council

STACIA SCHROEDER, P.E.

TOWN ENGINEER

BONNIE RITTER

CLERK-TREASURER

M:\Yarrow_Point\19456.00 42nd St - 91st Ave Storm\01 Design\PLANSET\General\LEGEND.dwg, 6/28/2019 2:47 PM, KEVIN BROWN

ABBREVIATIONS

AC	ASBESTOS CEMENT PIPE
ADJ	ADJUST
ALT	ALTERNATE
ALUM	ALUMINUM
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
AP	ANGLE POINT
ASPH	ASPHALT
ASSY	ASSEMBLY
ASTM	AMERICAN SOCIETY OF TESTING AND MATERIALS
AVE	AVENUE
BF	BLIND FLANGE
BLDG	BUILDING
BLK	BLOCK
BO	BLOW OFF
BOP	BEGINNING OF PROJECT
BVCE	BEGIN VERTICAL CURVE ELEVATION
BVCS	BEGIN VERTICAL CURVE STATION
C	CONDUIT
CAP	CORRUGATED ALUMINUM PIPE
CB	CATCH BASIN
CF	CUBIC FEET
CFS	CUBIC FEET PER SECOND
CICL	CAST IRON CLASS
CLR	CLEARANCE
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
CONC	CONCRETE
CONN	CONNECTION
CONT	CONTINUED/CONTINUOUS
CPEP	CORRUGATED POLYETHYLENE PIPE
CPLG	COUPLING
CTR	CENTER
CY	CUBIC YARD
¢	CENTER LINE
D	DRAIN
DC	DEGREE OF CURVATURE
DI	DUCTILE IRON
DIA	DIAMETER
DIM	DIMENSION
DOT	DEPARTMENT OF TRANSPORTATION
DWGS	DRAWING(S)
E	EAST
EA	EACH
EL	ELEVATION
ELEC	ELECTRICAL
EOA	EDGE OF ASPHALT
EOP	END OF PROJECT
EVCE	END VERTICAL CURVE ELEVATION
EVCS	END VERTICAL CURVE STATION
EXIST	EXISTING
FIG	FIGURE
FIN	FINISHED
FL	FLANGE
FT	FEET
GA	GAUGE
GALV	GALVANIZED
GI	GALVANIZED IRON
GV	GATE VALVE
HDPE	HIGH DENSITY POLYETHYLENE PIPE
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IN	INCH
INV	INVERT
L	LENGTH
LB	POUND
LF	LINEAR FEET
MAX	MAXIMUM
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MJ	MECHANICAL JOINT
N	NORTH
NO	NUMBER
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
PC	POINT OF CURVATURE
PE	PLAIN END
PERF	PERFORATED
PI	POINT OF INTERSECTION
PP	POWER POLE
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
PVI	POINT OF VERTICAL INTERSECTION
PVMT	PAVEMENT
PVT	POINT OF VERTICAL TANGENT
QTY	QUANTITY
R	RADIUS
R/W	RIGHT-OF-WAY
RED	REDUCER
REINF	REINFORCE
REQD	REQUIRED
RET	RETAINING
RR	RAILROAD
S	SOUTH
SCH	SCHEDULE
SF	SQUARE FEET
SHT	SHEET
SL	SLOPE
SPECS	SPECIFICATIONS
SQ	SQUARE
STA	STATION
STD	STANDARD
TB	THRUST BLOCK
TC	TOP OF CURB
TEL	TELEPHONE
TESC	TEMPORARY EROSION AND SEDIMENT CONTROL
THRD	THREADED
THRU	THROUGH
TYP	TYPICAL
VERT	VERTICAL
W	WEST
W/O	WITHOUT
WSDOT	WASHINGTON STATE DEPARTMENT OF TRANSPORTATION

LINETYPES

EXISTING	PROPOSED	DESCRIPTION
SURFACE FEATURES		
		CURB (TYPE AS NOTED)
		ASPHALT PAVEMENT
		GRAVEL SURFACING
		CONCRETE SURFACING
		CEMENT CONC. SIDEWALK
		FENCE/RAILING (TYPE AS NOTED)
		SHRUB/TREE/VEGETATION LINE
		EDGE OF LANDSCAPING
SURVEY		
		RIGHT-OF-WAY LINE
		CENTERLINE OF CONSTRUCTION
		PROPERTY LINE
		TEMPORARY CONSTRUCTION EASEMENT
		CONTOUR LINE
		SAWCUT LINE (APPROXIMATE LOCATION)
UTILITIES		
		OVERHEAD UTILITIES
		BURIED ELECTRICAL
		BURIED TELEPHONE
		BURIED CABLE TELEVISION
		JOINT TRENCH
		GAS MAIN (SIZE AS NOTED)
		WATER MAIN (SIZE AS NOTED)
		IRRIGATION LINE (SIZE AS NOTED)
		SANITARY SEWER MAIN (SIZE AS NOTED)
		STORM DRAIN (SIZE AS NOTED)

SHEET INDEX	
SHEET #	DESCRIPTION
1	VICINITY & LOCATION MAPS, SYMBOL LEGEND, ABBREVIATIONS AND INDEX
2	GENERAL CONSTRUCTION NOTES
3-5	PLAN AND PROFILE
6-9	STORM DETAILS
10-15	JOINT UTILITY TRENCH PLAN
16	JOINT TRENCH DETAILS
17	IRRIGATION PLAN
18-21	RESTORATION PLAN

WATER SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		CAP/PLUG
		COUPLING/ADAPTER
		GUARD POST/BOLLARD
		REDUCER
		THRUST BLOCK
		WATER METER
		FIRE HYDRANT (3-NOZZLE)
VALVES		
		AIR RELIEF VALVE
		BLOW-OFF VALVE
		GATE VALVE

GAS/POWER/TELEPHONE/CABLE SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		GAS METER
		GAS VALVE
		UTILITY POLE
		UTILITY POLE ANCHOR
		PSE (P) JUNCTION BOX OR VAULT (ACTUAL DIMENSION SHOWN IN PLAN VIEW)
		CENTURY LINK (CL) HH (ACTUAL DIMENSION SHOWN IN PLAN VIEW)
		COMCAST (C) HH (ACTUAL DIMENSION SHOWN IN PLAN VIEW)

SURVEY SYMBOLS

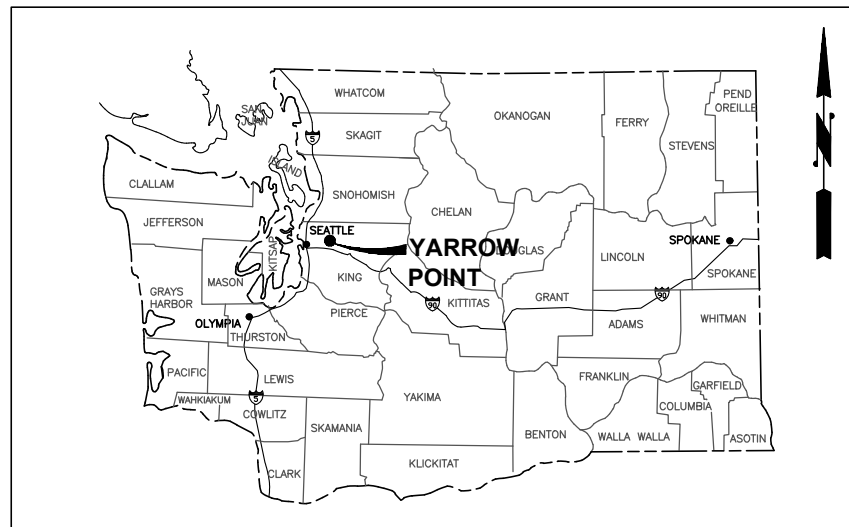
EXISTING	PROPOSED	DESCRIPTION
		CONTROL POINT
		MONUMENT (IN CASE)
		MONUMENT (SURFACE)
		BENCH MARK
		BOUNDARY/PROPERTY CORNER

SANITARY/STORM SEWER SYMBOLS

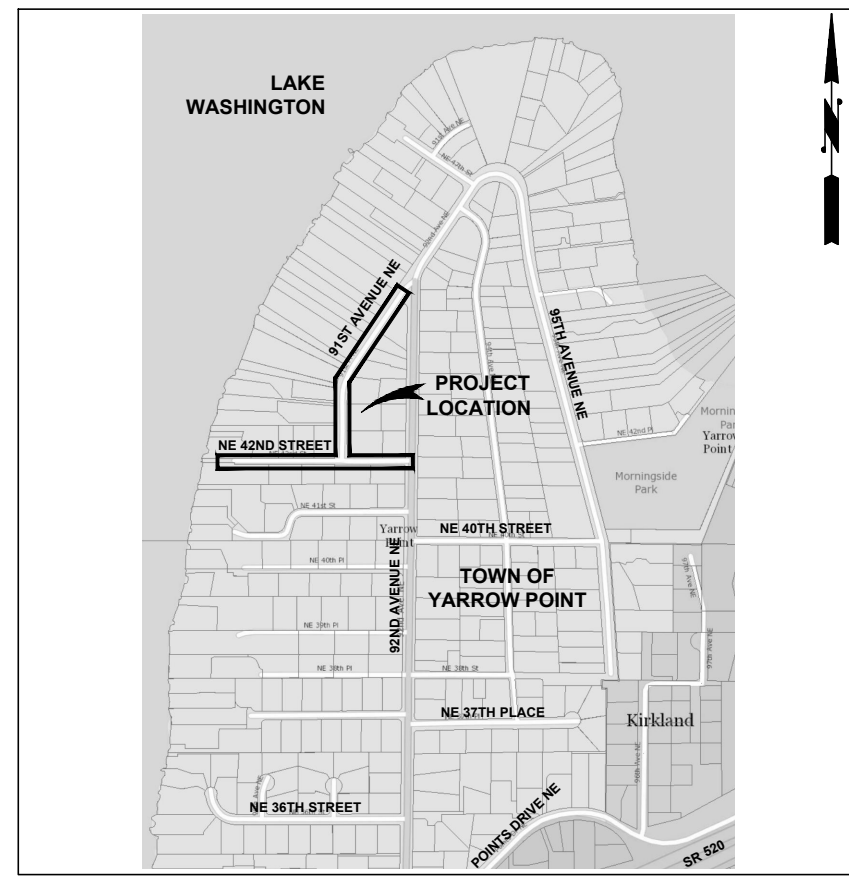
EXISTING	PROPOSED	DESCRIPTION
		STORM DRAIN MANHOLE/TYPE 2 CATCH BASIN (ACTUAL DIMENSION SHOWN FOR PROPOSED)
		STORM DRAIN CATCH BASIN, CONCRETE INLET, OR YARD/AREA DRAIN (ACTUAL DIMENSION SHOWN FOR PROPOSED)
		SANITARY SEWER MANHOLE (ACTUAL DIMENSION SHOWN FOR PROPOSED)
		CLEAN OUT (SAN. SEWER OR STORM)

SURFACE FEATURES/LANDSCAPING

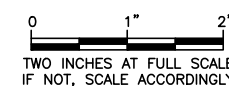
EXISTING	PROPOSED	DESCRIPTION
		BUILDING
		MAIL BOX (NOTED)
		SIGN
		ROCK WALL
		MODULAR BLOCK WALL
		SHRUB
		TREE (CONIFER)
		TREE (DECIDUOUS)



VICINITY MAP
NTS



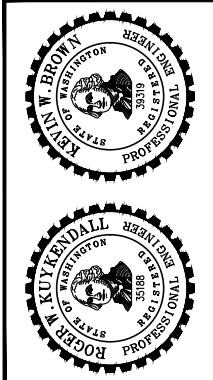
LOCATION MAP
SCALE: XXX



Gray & Osborne, Inc.
CONSULTING ENGINEERS
3710 188TH STREET NE, BLDG. B, SUITE 210
ARLINGTON, WA 98223 • (509) 434-5960

DATE: JUN 2019	DRAWN: C.J.B.	CHECKED: K.W.B.	APPROVED: R.W.K.
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REVISION	DATE	APPD
60% SUBMITTAL CONSTRUCTION		



TOWN OF YARROW POINT
WASHINGTON
KING
NE 42ND STREET/91ST AVENUE NE
STORMWATER & UGC PROJECT
VICINITY & LOCATION MAPS, SYMBOL LEGEND,
ABBREVIATIONS AND INDEX

SHEET: 1
OF: 21
JOB NO.: 19456
DWG: LEGEND

GENERAL NOTES

- THIS DEVELOPMENT PROJECT SHALL CONFORM TO THE TOWN OF YARROW POINT'S REQUIREMENTS AND BE IN ACCORDANCE WITH THE APPROVED PLANS. ANY CHANGES FROM THE APPROVED PLAN WILL REQUIRE APPROVAL FROM THE OWNER, ENGINEER, BUILDING OFFICIAL, TOWN ENGINEER, AND TOWN PLANNER AS APPLICABLE.
- ALL WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE "WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT) STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION" (LATEST EDITION), EXCEPT WHERE SUPPLEMENTED OR MODIFIED BY THE TOWN. COPIES OF THE ABOVE DOCUMENTS SHALL BE AVAILABLE AT THE JOB SITE DURING CONSTRUCTION.
- A PRE-CONSTRUCTION MEETING IS REQUIRED PRIOR TO THE START OF ALL CONSTRUCTION. CONTACT THE TOWN ENGINEER OR THE TOWN BUILDING OFFICIAL TO SCHEDULE A MEETING.
- LOCATIONS SHOWN FOR EXISTING UTILITIES ARE APPROXIMATE. THE CONTRACTOR IS CAUTIONED THAT OVERHEAD UTILITY LINES MAY NOT BE SHOWN ON THE DRAWINGS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE TRUE ELEVATIONS AND LOCATIONS OF ALL UNDERGROUND UTILITIES AND THE EXTENT OF ANY HAZARDS CREATED BY OVERHEAD UTILITY LINES. IDENTIFICATION, LOCATION MARKING, AND RESPONSIBILITY FOR UNDERGROUND FACILITIES OR UTILITIES IS GOVERNED BY PROVISION OF CHAPTER 19.122 REVISED CODE OF WASHINGTON (RCW). PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL CALL ONECALL (1-800-424-5555) FOR UTILITY LOCATIONS (WATER, SANITARY SEWER, STORM SEWER, GAS, POWER, TELEPHONE, CABLE TELEVISION, AND INTERNET).
- AS-BUILT DRAWINGS ARE REQUIRED PRIOR TO PROJECT ACCEPTANCE.
- IF THIS PROJECT INVOLVES A PUBLIC IMPROVEMENT, THE PLANS SHALL BE PREPARED USING THE ICC/ANSI A117.1-2003 AMERICAN NATIONAL STANDARD FOR ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES REFERENCE MANUAL. ANY CONFLICTS BETWEEN THOSE STANDARDS AND THESE PLANS SHALL BE IMMEDIATELY BROUGHT TO THE TOWN'S ATTENTION.

STORM DRAINAGE NOTES

- A PRE-CONSTRUCTION CONFERENCE SHALL BE HELD PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION.
- BEFORE ANY CONSTRUCTION MAY OCCUR, THE CONTRACTOR SHALL HAVE PLANS WHICH HAVE BEEN SIGNED AND APPROVED BY THE TOWN OF YARROW POINT, OBTAINED ALL TOWN, COUNTY, STATE, FEDERAL, AND OTHER REQUIRED PERMITS, AND HAVE POSTED ALL REQUIRED BONDS. CONTACT THE TOWN OF YARROW POINT (425) 454-6994 FOR THE CURRENT PLAN SUBMITTAL PROCEDURES.
- ALL STORM DRAINAGE IMPROVEMENTS SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE TOWN OF YARROW POINT STANDARD PLANS AND NOTES, AND THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION, PREPARED BY WSDOT AND THE AMERICAN PUBLIC WORKS ASSOCIATION (APWA).
- ANY DEVIATION FROM THE APPROVED PLANS WILL REQUIRE WRITTEN APPROVAL. ALL CHANGES SHALL BE SUBMITTED TO THE TOWN.
- A COPY OF THE APPROVED STORM WATER PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
- ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED OR SIMILARLY STABILIZED TO THE SATISFACTION OF THE TOWN OF YARROW POINT FOR THE PREVENTION OF ON-SITE EROSION AFTER THE COMPLETION OF CONSTRUCTION.
- MINIMUM COVER OVER STORM DRAINAGE PIPES IN ROW OR VEHICULAR PATH SHALL BE 18 INCHES, UNLESS OTHER DESIGN IS APPROVED.
- STEEL PIPE SHALL HAVE ASPHALT TREATMENT #1 OR BETTER INSIDE AND OUTSIDE.
- ALL CATCH BASINS SHALL BE TYPE I UNLESS OTHERWISE NOTED. CATCH BASINS WITH A DEPTH OF OVER FIVE FEET (5') TO THE PIPE INVERT SHALL BE A TYPE II CATCH BASIN. TYPE II CATCH BASINS EXCEEDING FIVE FEET (5') IN DEPTH SHALL HAVE A STANDARD LADDER INSTALLED.
- ALL STORM DRAINAGE MAIN EXTENSIONS WITHIN THE PUBLIC RIGHT-OF-WAY OR IN EASEMENTS MUST BE STAKED FOR LINE AND GRADE PRIOR TO STARTING CONSTRUCTION.
- ROCK FOR EROSION PROTECTION OF ROADWAY DITCHES, WHERE REQUIRED, MUST BE OF SOUND QUARRY ROCK, PLACED TO A DEPTH OF ONE FOOT (1') AND MUST MEET THE FOLLOWING SPECIFICATIONS: 4"-8" ROCK/40%-70% PASSING; 2"-4" ROCK/ 30%-40% PASSING; 2"-MINUS ROCK/ 10%-20% PASSING.
- ALL PIPE, MANHOLES, CATCH BASINS, AND APPURTENANCES SHALL BE LAID ON A PROPERLY PREPARED FOUNDATION IN ACCORDANCE WITH THE CURRENT STATE OF WASHINGTON STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (WSDOT). THIS SHALL INCLUDE NECESSARY LEVELING OF THE TRENCH BOTTOM OR THE TOP OF THE FOUNDATION MATERIAL AS WELL AS PLACEMENT AND COMPACTION OF REQUIRED BEDDING MATERIAL TO UNIFORM GRADE SO THAT THE ENTIRE LENGTH OF THE PIPE WILL BE SUPPORTED ON A UNIFORMLY DENSE, UNYIELDING BASE. IF THE NATIVE MATERIAL IN THE BOTTOM OF THE TRENCH MEETS THE REQUIREMENTS FOR "GRAVEL BACKFILL FOR PIPE BEDDING," THE FIRST LIFT OF PIPE BEDDING MAY BE OMITTED PROVIDED THE MATERIAL IN THE BOTTOM OF THE TRENCH IS LOOSENEED, RE-GRADED, AND COMPACTED TO FORM A DENSE UNYIELDING BASE. ALL PIPE BEDDING SHALL BE APWA CLASS B, TYPE I, OR BETTER. PIPE SHALL NOT BE INSTALLED ON SOD, FROZEN EARTH, LARGE BOULDERS, OR ROCK. PIPE BEDDING FOR FLEXIBLE PIPES SHALL BE PEA GRAVEL TO THE SPRING LINE OF THE PIPE.
- CONSTRUCTION OF DEWATERING (GROUNDWATER) SYSTEMS SHALL BE IN ACCORDANCE WITH THE APWA STANDARD SPECIFICATIONS.

STORM DRAINAGE NOTES (CONT.)

- ISSUANCE OF A BUILDING AND/OR SITE DEVELOPMENT PERMIT BY THE TOWN OF YARROW POINT DOES NOT RELIEVE THE OWNER OF THE CONTINUING LEGAL OBLIGATION AND/OR LIABILITY CONNECTED WITH STORM SURFACE WATER DISPOSITION. FURTHER, THE TOWN OF YARROW POINT DOES NOT ACCEPT ANY OBLIGATION FOR THE PROPER FUNCTIONING AND MAINTENANCE OF THE SYSTEM DURING OR FOLLOWING CONSTRUCTION EXCEPT AS OUTLINED IN THE YARROW POINT MUNICIPAL CODE.
- ALL TRENCH BACKFILL SHALL BE COMPACTED TO 95 PERCENT DENSITY IN ROADWAYS, ROADWAY SHOULDERS, ROADWAY PRISM AND DRIVEWAYS, AND 85 PERCENT DENSITY IN UNPAVED AREAS. ALL PIPE ZONE COMPACTION SHALL BE 95 PERCENT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SAFEGUARDS, SAFETY DEVICES, PROTECTIVE EQUIPMENT, CONFINED SPACE PROTECTION, FLAGGERS, AND ANY OTHER NEEDED ACTIONS TO PROTECT THE LIFE, HEALTH, AND SAFETY OF THE PUBLIC, AND TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK COVERED BY THE CONTRACT. ANY WORK WITHIN THE TRAVELED RIGHT-OF-WAY THAT MAY INTERRUPT NORMAL TRAFFIC FLOW SHALL REQUIRE A TRAFFIC CONTROL PLAN APPROVED BY THE TOWN OF YARROW POINT. ALL SECTIONS OF THE WSDOT STANDARD SPECIFICATIONS, TRAFFIC CONTROL SECTION, AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) SHALL APPLY.
- NO FINAL CUT OR FILL SLOPE SHALL EXCEED SLOPES OF TWO (2) HORIZONTAL TO ONE (1) VERTICAL WITHOUT STABILIZATION BY ROCKERY OR BY A STRUCTURAL RETAINING WALL.
- ALL MANHOLE LADDERS SHALL BE FIRMLY ATTACHED AND EXTEND TO WITHIN 1' OF THE BOTTOM OF THE STRUCTURE.
- APPROXIMATE LOCATIONS OF EXISTING UTILITIES HAVE BEEN OBTAINED FROM AVAILABLE RECORDS AND ARE SHOWN FOR CONVENIENCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF EXISTING UTILITY LOCATIONS WHETHER OR NOT THESE UTILITIES ARE SHOWN ON THE PLANS. THE CONTRACTOR SHALL EXERCISE ALL CARE TO AVOID DAMAGE TO ANY UTILITY. IF CONFLICTS WITH EXISTING UTILITIES ARISE DURING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE TOWN ENGINEER OR THE TOWN BUILDING OFFICIAL IMMEDIATELY AND ANY CHANGES REQUIRED SHALL BE APPROVED BY THE APPROPRIATE TOWN STAFF PRIOR TO COMMENCEMENT OF RELATED CONSTRUCTION ON THE PROJECT.
- THE UNDERGROUND UTILITY LOCATION SERVICE SHALL BE CONTACTED FOR THE FIELD LOCATION OF EXISTING UTILITIES PRIOR TO ANY CONSTRUCTION. THE OWNER OR HIS REPRESENTATIVE SHALL BE CONTACTED IF A UTILITY CONFLICT EXISTS. FOR UTILITY LOCATIONS IN KING COUNTY, CALL 1-800-424-5555. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT UTILITY LOCATES ARE MAINTAINED THROUGHOUT THE LIFE OF THE PROJECT.
- THE CONTRACTOR SHALL VERIFY THE LOCATIONS, WIDTHS, THICKNESSES, AND ELEVATIONS OF ALL EXISTING PAVEMENTS AND STRUCTURES THAT ARE TO INTERFACE WITH NEW WORK. PROVIDE ALL TRIMMING, CUTTING, SAW CUTTING, GRADING, LEVELING, SLOPING, COATING, AND OTHER WORK, INCLUDING MATERIALS AS NECESSARY, TO CAUSE THE INTERFACE WITH EXISTING WORKS TO BE PROPER, ACCEPTABLE TO THE TOWN ENGINEER AND/OR THE TOWN BUILDING OFFICIAL, COMPLETE IN PLACE AND READY TO USE.
- ALL INLET, MANHOLE, AND CATCH BASIN FRAMES AND GRATES SHALL NOT BE ADJUSTED TO GRADE UNTIL IMMEDIATELY PRIOR TO FINAL PAVING. ALL CATCH BASIN GRATES SHALL BE SET 0.10' BELOW PAVEMENT LEVEL.
- UTILITY ROAD CROSSINGS SHALL BE BORED WHENEVER POSSIBLE. OPEN CUT ROAD CROSSINGS FOR UTILITY TRENCHES ON EXISTING TRAVELED ROADWAYS SHALL BE BACKFILLED ONLY WITH 5/8" MINUS CRUSHED ROCK AND MECHANICALLY COMPACTED (UNLESS OTHERWISE APPROVED BY THE TOWN). NOTE: FOR STREETS UNDERLAIN BY CONCRETE, BACKFILL FOR CROSSINGS SHALL BE CDF. CUTS INTO THE EXISTING ASPHALT SHALL BE NEAT LINE CUT WITH SAW OR JACK HAMMER IN A CONTINUOUS LINE. A TEMPORARY COLD MIX PATCH MUST BE PLACED IMMEDIATELY AFTER BACKFILL AND COMPACTION. A PERMANENT HOT MIX PATCH SHALL BE PLACED WITHIN 30 DAYS AND SHALL BE A MINIMUM OF 1" THICKER THAN THE ORIGINAL ASPHALT WITH A MINIMUM THICKNESS OF 2".
- ALL DAMAGES INCURRED TO PUBLIC AND/OR PRIVATE PROPERTY BY THE CONTRACTOR DURING THE COURSE OF CONSTRUCTION SHALL BE PROMPTLY REPAIRED TO THE SATISFACTION OF THE TOWN ENGINEER AND/OR TOWN BUILDING OFFICIAL BEFORE PROJECT APPROVAL AND THE RELEASE ANY BONDS.
- GROUT ALL SEAMS AND OPENINGS IN ALL INLETS, CATCH BASINS, AND MANHOLES.
- WHEN WIDENING AN EXISTING ROADWAY WHERE AN EXISTING TYPE I CATCH BASIN WILL REMAIN IN THE TRAVEL LANE, THE EXISTING FRAME AND COVER SHALL BE REPLACED WITH A ROUND, LOCKING FRAME AND COVER.
- FOR OTHER THAN SINGLE-FAMILY DWELLINGS, ALL EXPOSED OR READILY EXPOSED INDOOR STORM DRAINAGE PIPING/PLUMBING SHALL BE LABELED WITH THE WORDS "STORM DRAIN" WITH MINIMUM 2 INCH HIGH LETTERS.

TEMPORARY EROSION/SEDIMENTATION NOTES

- THE APPROVED CONSTRUCTION SEQUENCE SHALL BE AS FOLLOWS:
 - CONDUCT PRE-CONSTRUCTION MEETING.
 - FLAG OR FENCE CLEARING LIMITS.
 - POST SIGN WITH NAME AND PHONE NUMBER OF TESC SUPERVISOR.
 - INSTALL CATCH BASIN PROTECTION IF REQUIRED.
 - GRADE AND INSTALL CONSTRUCTION ENTRANCE(S).
 - INSTALL PERIMETER PROTECTION (SILT FENCE, BRUSH BARRIER, ETC.).
 - CONSTRUCT SEDIMENT PONDS AND TRAPS.
 - GRADE AND STABILIZE CONSTRUCTION ROADS.
 - CONSTRUCT SURFACE WATER CONTROLS (INTERCEPTOR DIKES, PIPE SLOPE DRAINS, ETC.) SIMULTANEOUSLY WITH CLEARING AND GRADING FOR PROJECT DEVELOPMENT.
 - MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH TOWN OF YARROW POINT STANDARDS AND MANUFACTURER'S RECOMMENDATIONS.
 - RELOCATE EROSION CONTROL MEASURES OR INSTALL NEW MEASURES SO THAT AS SITE CONDITIONS CHANGE, THE EROSION AND SEDIMENT CONTROL IS ALWAYS IN ACCORDANCE WITH THE TOWN TESC MINIMUM REQUIREMENTS.
 - COVER ALL AREAS WITHIN THE SPECIFIED TIME FRAME WITH STRAW, WOOD FIBER MULCH, COMPOST, PLASTIC SHEETING, CRUSHED ROCK OR EQUIVALENT.
 - STABILIZE ALL AREAS THAT REACH FINAL GRADE WITHIN 7 DAYS.
 - SEED OR SOD ANY AREAS TO REMAIN UNWORKED FOR MORE THAN 30 DAYS.
 - UPON COMPLETION OF THE PROJECT, ALL DISTURBED AREAS MUST BE STABILIZED AND BEST MANAGEMENT PRACTICES REMOVED IF APPROPRIATE.
- APPROVAL OF THIS EROSION/SEDIMENTATION CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G., SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.)
- THE IMPLEMENTATION OF THIS ESC PLAN AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE PERMITTEE/CONTRACTOR UNTIL ALL CONSTRUCTION IS APPROVED.
- THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE SET BY SURVEY AND CLEARLY FLAGGED IN THE FIELD BY A CLEARING CONTROL FENCE PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE OR REMOVAL OF ANY GROUND COVER BEYOND THE FLAGGED CLEARING LIMITS SHALL BE PERMITTED. THE FLAGGING SHALL BE MAINTAINED BY THE PERMITTEE/CONTRACTOR FOR THE DURATION OF CONSTRUCTION.
- THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED PRIOR TO OR IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES IN SUCH A MANNER AS TO ENSURE THAT SEDIMENT-LADEN WATER DOES NOT ENTER THE DRAINAGE SYSTEM OR VIOLATE APPLICABLE WATER STANDARDS. WHEREVER POSSIBLE, MAINTAIN NATURAL VEGETATION FOR SILT CONTROL.
- THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED (E.G. ADDITIONAL SUMPS, RELOCATION OF DITCHES AND SILT FENCES, ETC.) AS NEEDED FOR UNEXPECTED STORM EVENTS. ADDITIONALLY, MORE ESC FACILITIES MAY BE REQUIRED TO ENSURE COMPLETE SILTATION CONTROL. THEREFORE, DURING THE COURSE OF CONSTRUCTION IT SHALL BE THE OBLIGATION AND RESPONSIBILITY OF THE CONTRACTOR TO ADDRESS ANY NEW CONDITIONS THAT MAY BE CREATED BY HIS ACTIVITIES AND TO PROVIDE ADDITIONAL FACILITIES OVER AND ABOVE THE MINIMUM REQUIREMENTS AS MAY BE NEEDED.
- THE ESC FACILITIES SHALL BE INSPECTED BY THE PERMITTEE/CONTRACTOR DAILY DURING NON-RAINFALL PERIODS, EVERY HOUR (DAYLIGHT) DURING RAINFALL EVENTS, AT THE END OF EVERY RAINFALL, AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING. IN ADDITION, TEMPORARY SILTATION PONDS AND ALL TEMPORARY SILTATION CONTROLS SHALL BE MAINTAINED IN A SATISFACTORY CONDITION UNTIL SUCH TIME THAT CLEARING AND/OR CONSTRUCTION IS COMPLETED, PERMANENT DRAINAGE FACILITIES ARE OPERATIONAL, AND THE POTENTIAL FOR EROSION HAS PASSED. WRITTEN RECORDS SHALL BE KEPT DOCUMENTING THE REVIEWS OF THE ESC FACILITIES.
- THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN 48 HOURS FOLLOWING A STORM EVENT.
- ALL DENUDED SOILS MUST BE STABILIZE WITH AN APPROVED TESC METHOD (E.G. SEEDING, MULCHING, PLASTIC COVERING, CRUSHED ROCK) WITHIN THE FOLLOWING TIMELINES:
 - MAY 1 TO SEPTEMBER 30 - SOILS MUST BE STABILIZED WITHIN 7 DAYS OF GRADING.
 - OCTOBER 1 TO APRIL 30 - SOILS MUST BE STABILIZED WITHIN 2 DAYS OF GRADING
 - STABILIZE SOILS AT THE END OF THE WORKDAY PRIOR TO A WEEKEND, HOLIDAY, OR PREDICTED RAIN EVENT.
- AT NO TIME SHALL MORE THAN 1' OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT-LADEN WATER INTO THE DOWNSTREAM SYSTEM.
- STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES, SUCH AS WASH PADS, MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
- ANY PERMANENT RETENTION/DETENTION FACILITY USED AS A TEMPORARY SETTLING BASIN SHALL BE MODIFIED WITH THE NECESSARY EROSION CONTROL MEASURES AND SHALL PROVIDE ADEQUATE STORAGE CAPACITY. IF THE PERMANENT FACILITY IS TO FUNCTION ULTIMATELY AS AN INFILTRATION OR DISPERSION SYSTEM, THE FACILITY SHALL NOT BE USED AS A TEMPORARY SETTLING BASIN. NO UNDERGROUND DETENTION TANK, DETENTION VAULT, OR SYSTEM WHICH BACKS UNDER OR INTO A POND SHALL BE USED AS A TEMPORARY SETTLING BASIN.
- WHERE SEEDING FOR TEMPORARY EROSION CONTROL IS REQUIRED, FAST GERMINATING GRASSES SHALL BE APPLIED AT AN APPROPRIATE RATE (E.G., ANNUAL OR PERENNIAL RYE APPLIED AT APPROXIMATELY 80 POUNDS PER ACRE).
- WHERE STRAW MULCH IS REQUIRED FOR TEMPORARY EROSION CONTROL, IT SHALL BE APPLIED AT A MINIMUM THICKNESS OF 2".
- ALL EROSION/SEDIMENTATION CONTROL PONDS WITH A DEAD STORAGE DEPTH EXCEEDING 6" MUST HAVE A PERIMETER FENCE WITH A MINIMUM HEIGHT OF 3'.
- ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE TOWN OF YARROW POINT STANDARDS AND SPECIFICATIONS.
- THE ESC FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAILS ON THE APPROVED PLANS. LOCATIONS MAY BE MOVED TO SUIT FIELD CONDITIONS, SUBJECT TO APPROVAL BY THE TOWN ENGINEER OR THE TOWN BUILDING OFFICIAL.
- A COPY OF THE APPROVED EROSION CONTROL PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
- ALL LOTS ADJOINING OR HAVING ANY NATIVE GROWTH PROTECTION EASEMENTS (NGPE) SHALL HAVE A 6' HIGH TEMPORARY CONSTRUCTION FENCE (CHAIN LINK WITH PIER BLOCKS) SEPARATING THE LOT (OR BUILDABLE PORTIONS OF THE LOT) FROM THE AREA RESTRICTED BY THE NGPE AND SHALL BE INSTALLED PRIOR TO ANY GRADING OR CLEARING AND REMAIN IN PLACE UNTIL THE TOWN ENGINEER AUTHORIZES REMOVAL.
- CLEARING LIMITS SHALL BE DELINEATED WITH A CLEARING CONTROL FENCE. THE CLEARING CONTROL FENCE SHALL CONSIST OF A 6-FEET HIGH CHAIN LINK FENCE ADJACENT THE DRIP LINE OF TREES TO BE SAVED, WETLAND OR STREAM BUFFERS, AND SENSITIVE SLOPES. CLEARING CONTROL FENCES ALONG WETLAND OR STREAM BUFFERS OR UPSLOPE OF SENSITIVE SLOPES SHALL BE ACCOMPANIED BY AN EROSION CONTROL FENCE. IF APPROVED BY THE TOWN, A FOUR-FOOT HIGH ORANGE MESH CLEARING CONTROL FENCE MAY BE USED TO DELINEATE CLEARING LIMITS IN ALL OTHER AREAS.
- OFF-SITE STREETS MUST BE KEPT CLEAN AT ALL TIMES. IF DIRT IS DEPOSITED ON THE PUBLIC STREET SYSTEM THE STREET SHALL BE IMMEDIATELY CLEANED WITH POWER SWEEPER OR OTHER EQUIPMENT. ALL VEHICLES SHALL LEAVE THE SITE BY WAY OF THE CONSTRUCTION ENTRANCE AND SHALL BE CLEANED OF ALL DIRT THAT WOULD BE DEPOSITED ON THE PUBLIC STREETS.
- ANY CATCH BASINS COLLECTING RUNOFF FROM THE SITE, WHETHER THEY ARE ON OR OFF THE SITE, SHALL HAVE THEIR GRATES COVERED WITH FILTER FABRIC DURING CONSTRUCTION. CATCH BASINS DIRECTLY DOWNSTREAM OF THE CONSTRUCTION ENTRANCE OR ANY OTHER CATCH BASIN AS DETERMINED BY THE TOWN ENGINEER OR TOWN BUILDING OFFICIAL SHALL BE PROTECTED WITH A "FILTER FABRIC SOCK" OR EQUIVALENT.
- THE WASHED GRAVEL BACKFILL ADJACENT TO THE FILTER FABRIC FENCE SHALL BE REPLACED AND THE FILTER FABRIC CLEANED IF IT IS NONFUNCTIONAL BY EXCESSIVE SILT ACCUMULATION AS DETERMINE BY THE TOWN OF YARROW POINT. ALSO, ALL INTERCEPTOR SWALES SHALL BE CLEANED IF SILT ACCUMULATION EXCEEDS ONE QUARTER DEPTH.
- ROCK FOR EROSION PROTECTION OF ROADWAY DITCHES, WHERE REQUIRED, MUST BE OF SOUND QUARRY ROCK, PLACED TO A DEPTH OF 1' AND MUST MEET THE FOLLOWING SPECIFICATIONS: 4"-8" ROCK/40%-70% PASSING; 2"-4" ROCK/ 30%-40% PASSING; AND 1"-2" ROCK 10%-20% PASSING.
- IF ANY PART(S) OF THE CLEARING LIMIT BOUNDARY OR TEMPORARY EROSION/ SEDIMENTATION CONTROL PLAN IS/ARE DAMAGED, IT SHALL BE REPAIRED IMMEDIATELY.
- ALL PROPERTIES ADJACENT TO THE PROJECT SITE SHALL BE PROTECTED FROM SEDIMENT DEPOSITION AND RUNOFF.
- DO NOT FLUSH CONCRETE BY-PRODUCTS OR TRUCKS NEAR OR INTO THE STORM DRAINAGE SYSTEM. IF EXPOSED AGGREGATE IS FLUSHED INTO THE STORM SYSTEM, IT COULD MEAN RE-CLEANING THE ENTIRE DOWNSTREAM STORM SYSTEM, OR POSSIBLY RE-LAYING THE STORM LINE.
- PRIOR TO OCTOBER 1 OF EACH YEAR (THE BEGINNING OF THE WET SEASON), ALL DISTURBED AREAS SHALL BE REVIEWED TO IDENTIFY WHICH ONES CAN BE SEEDED IN PREPARATION FOR THE WINTER RAINS. THE IDENTIFIED DISTURBED AREA SHALL BE SEEDED WITHIN ONE WEEK AFTER OCTOBER 1. A SITE PLAN DEPICTING THE AREAS TO BE SEEDED AND THE AREAS TO REMAIN UNCOVERED SHALL BE SUBMITTED TO THE TOWN ENGINEER. THE TOWN ENGINEER CAN REQUIRE SEEDING OF ADDITIONAL AREAS IN ORDER TO PROTECT SURFACE WATERS, ADJACENT PROPERTIES, OR DRAINAGE FACILITIES.
- IF A SEDIMENT POND IS NOT PROPOSED, A BAKER TANK OR OTHER TEMPORARY GROUND AND/OR SURFACE WATER STORAGE TANK MAY BE REQUIRED DURING CONSTRUCTION, DEPENDING ON WEATHER CONDITIONS.

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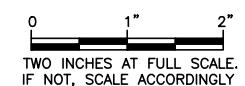
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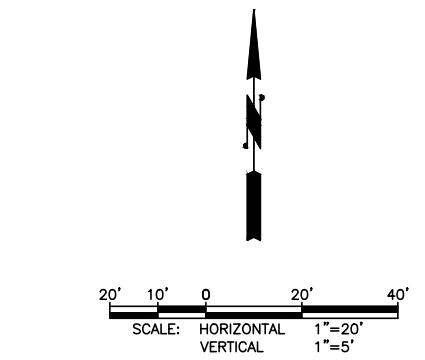
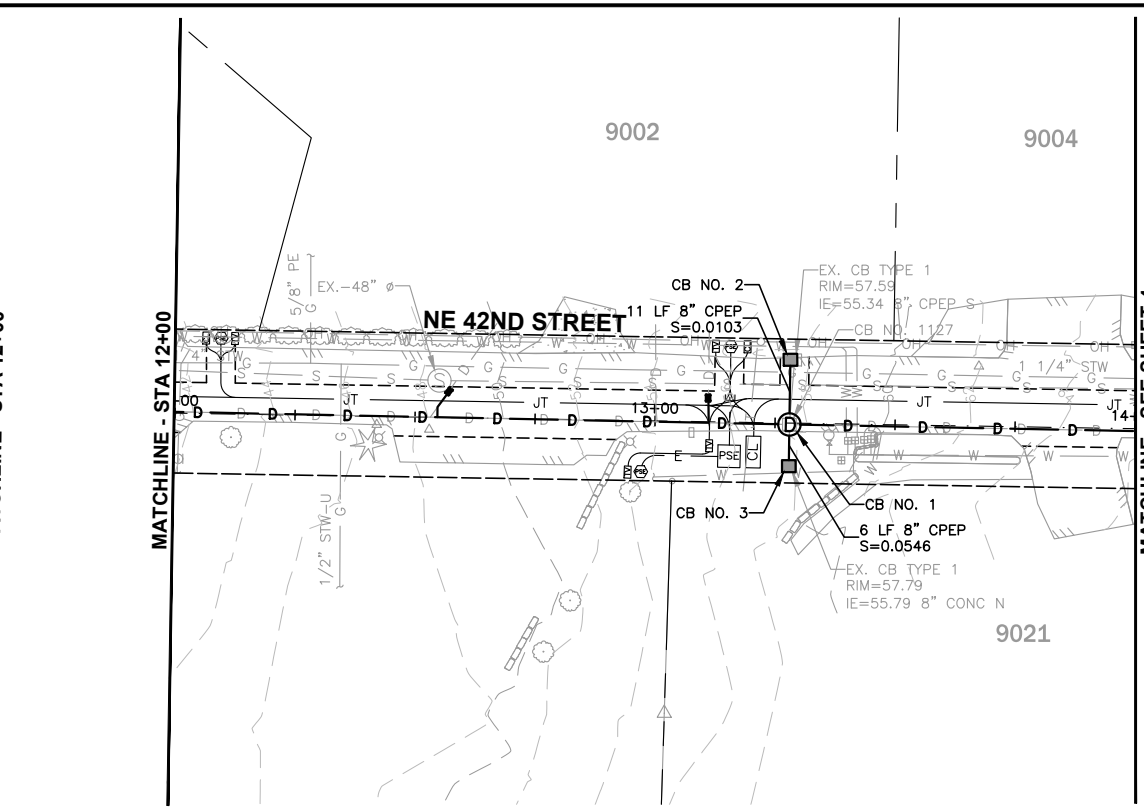
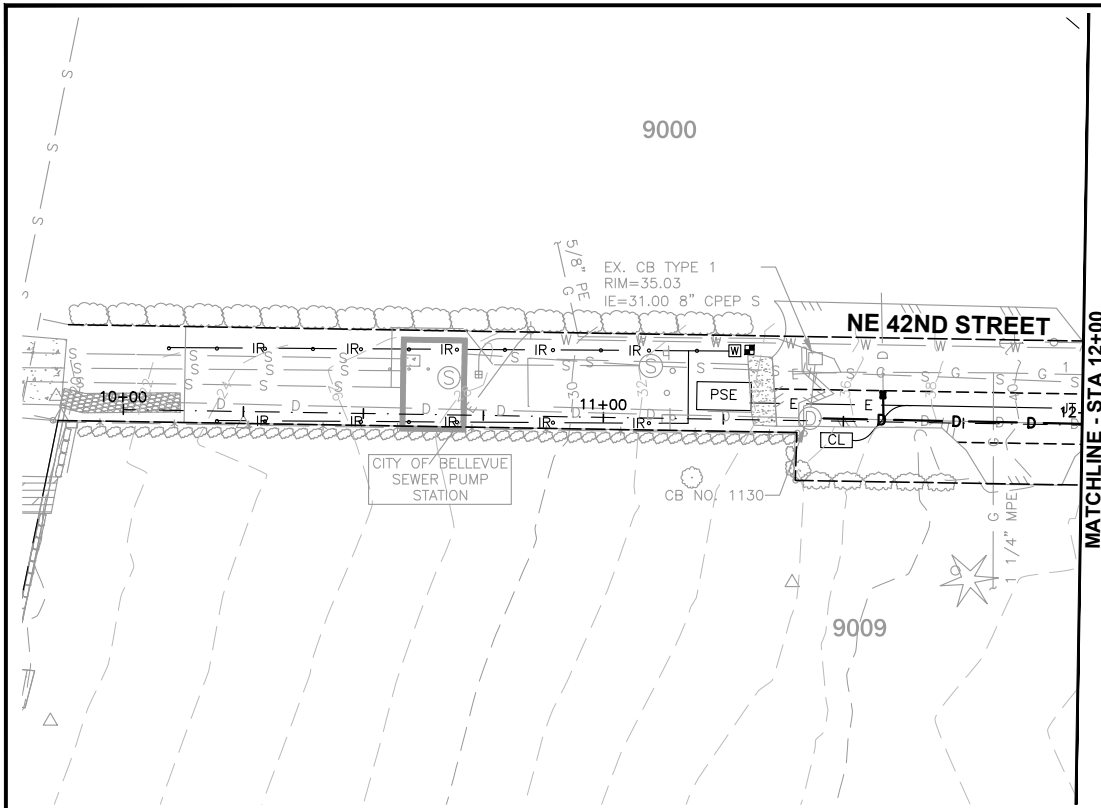
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TOWN OF YARROW POINT
KING WASHINGTON
NE 42ND STREET/91ST AVENUE NE
STORMWATER & UGC PROJECT
GENERAL CONSTRUCTION NOTES

SHEET:	2
OF:	21
JOB NO.:	19456
DWG:	GENERAL NOTES

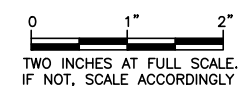
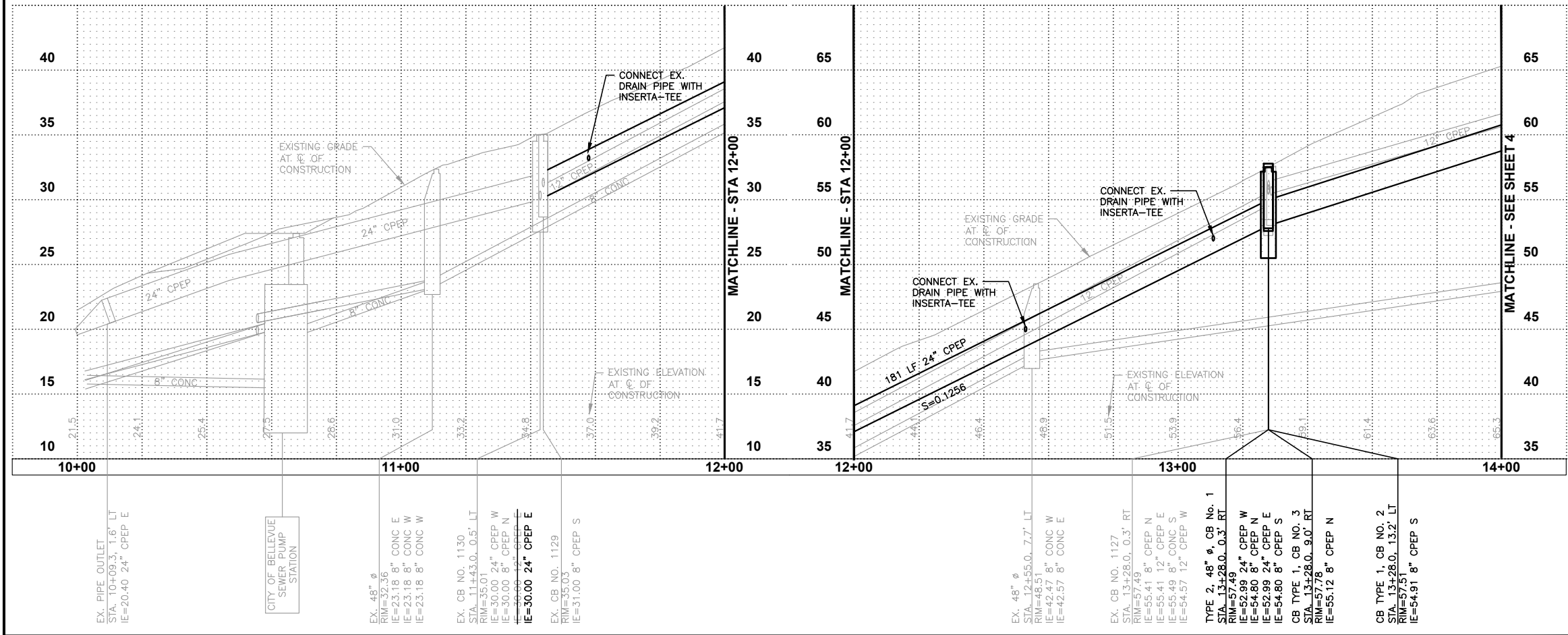


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CONSTRUCTION NOTES

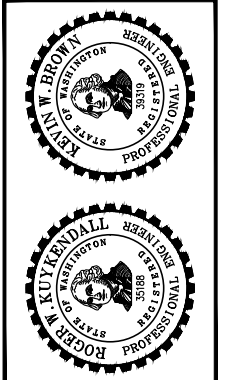
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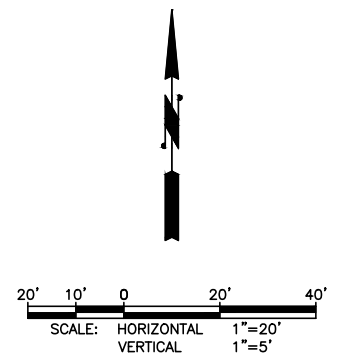
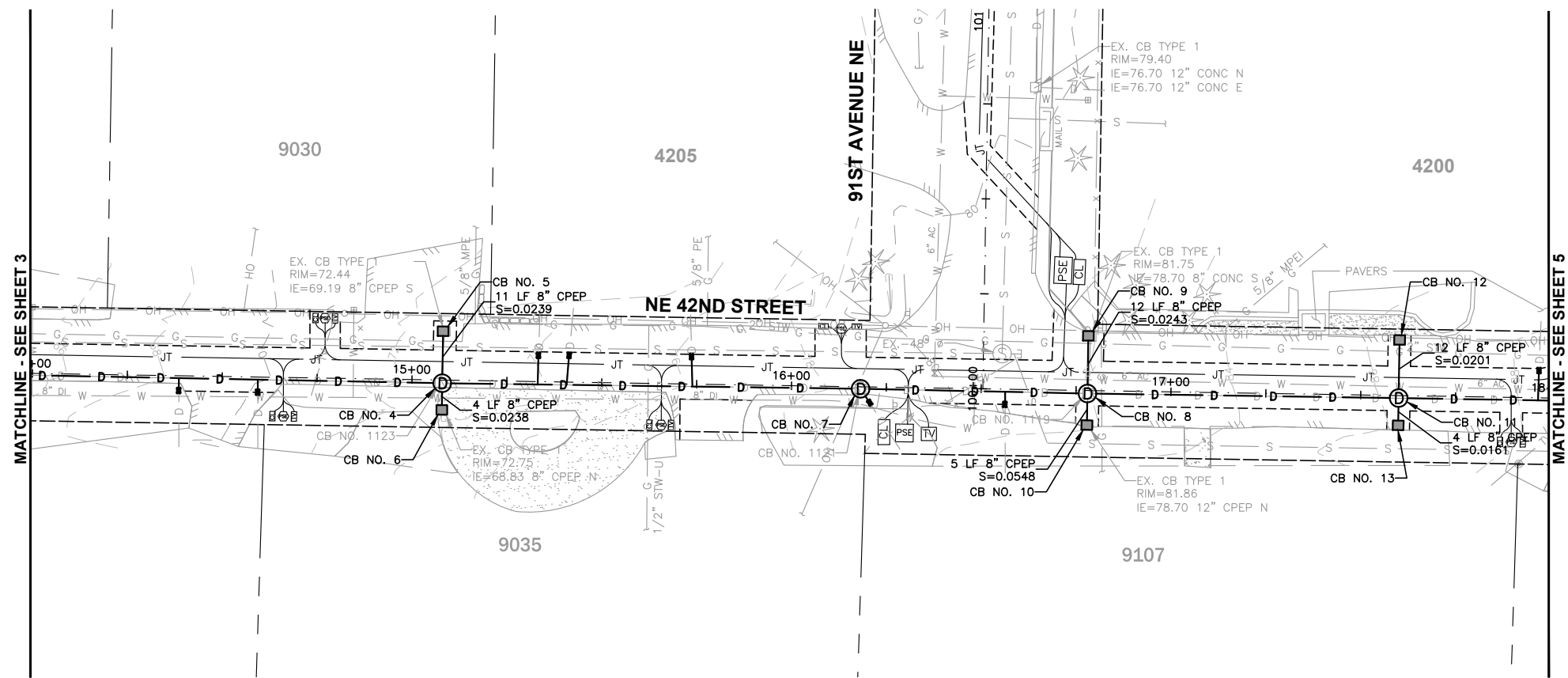
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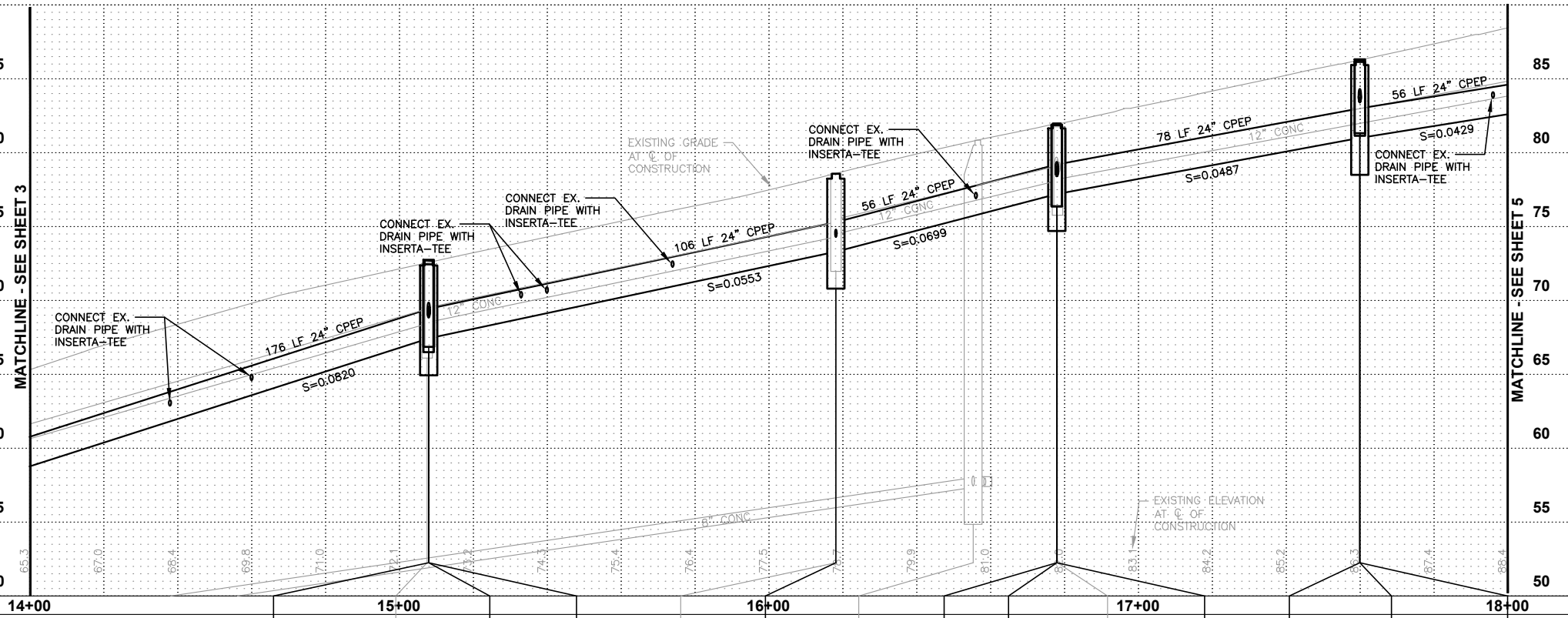
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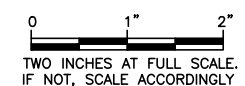


CONSTRUCTION NOTES

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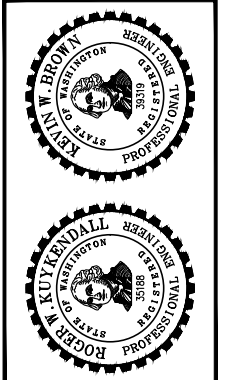
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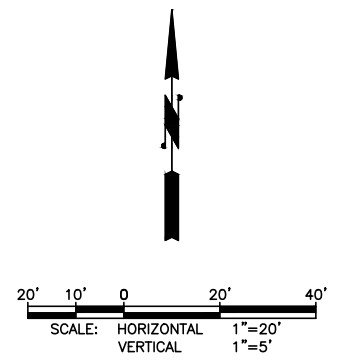
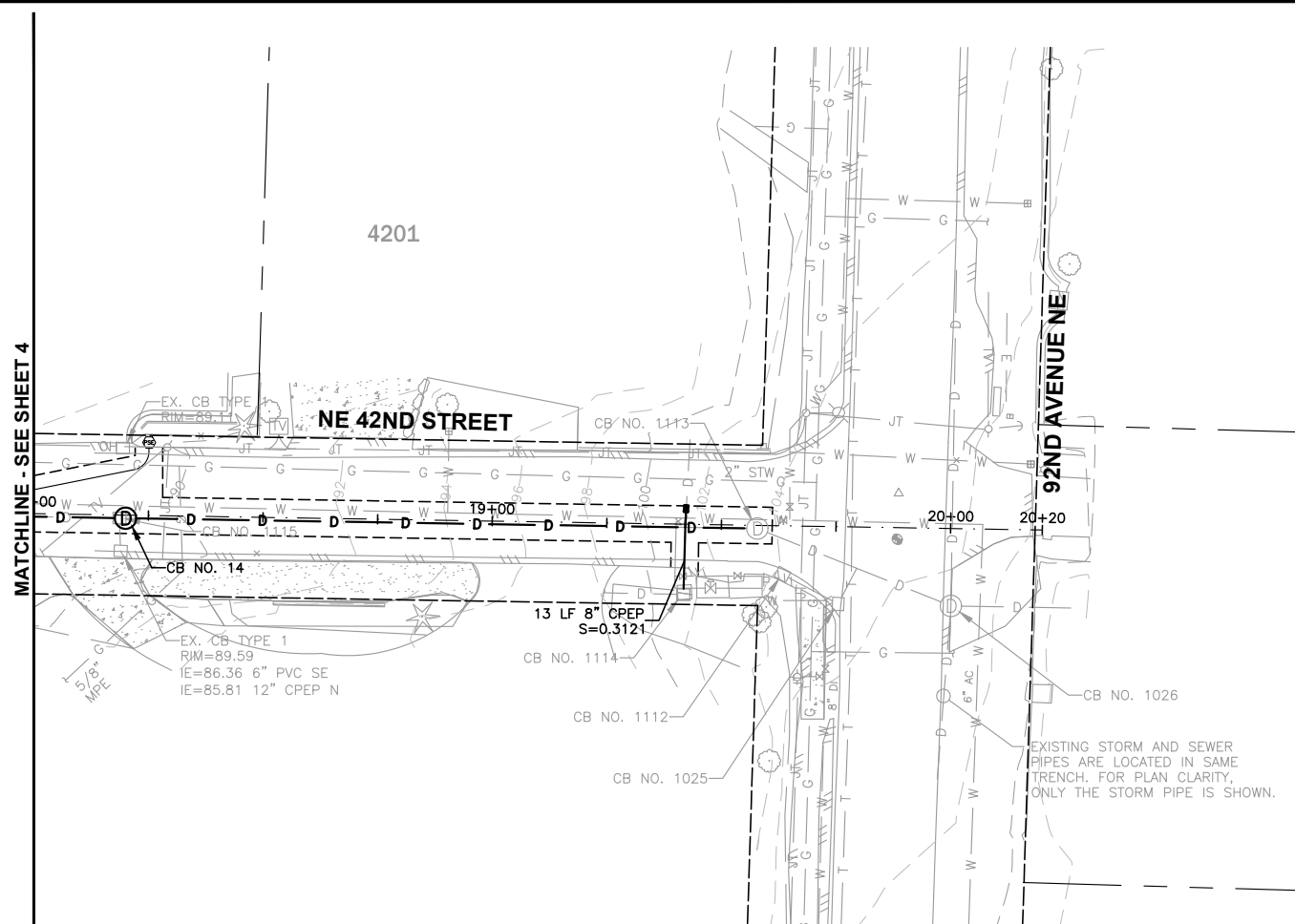
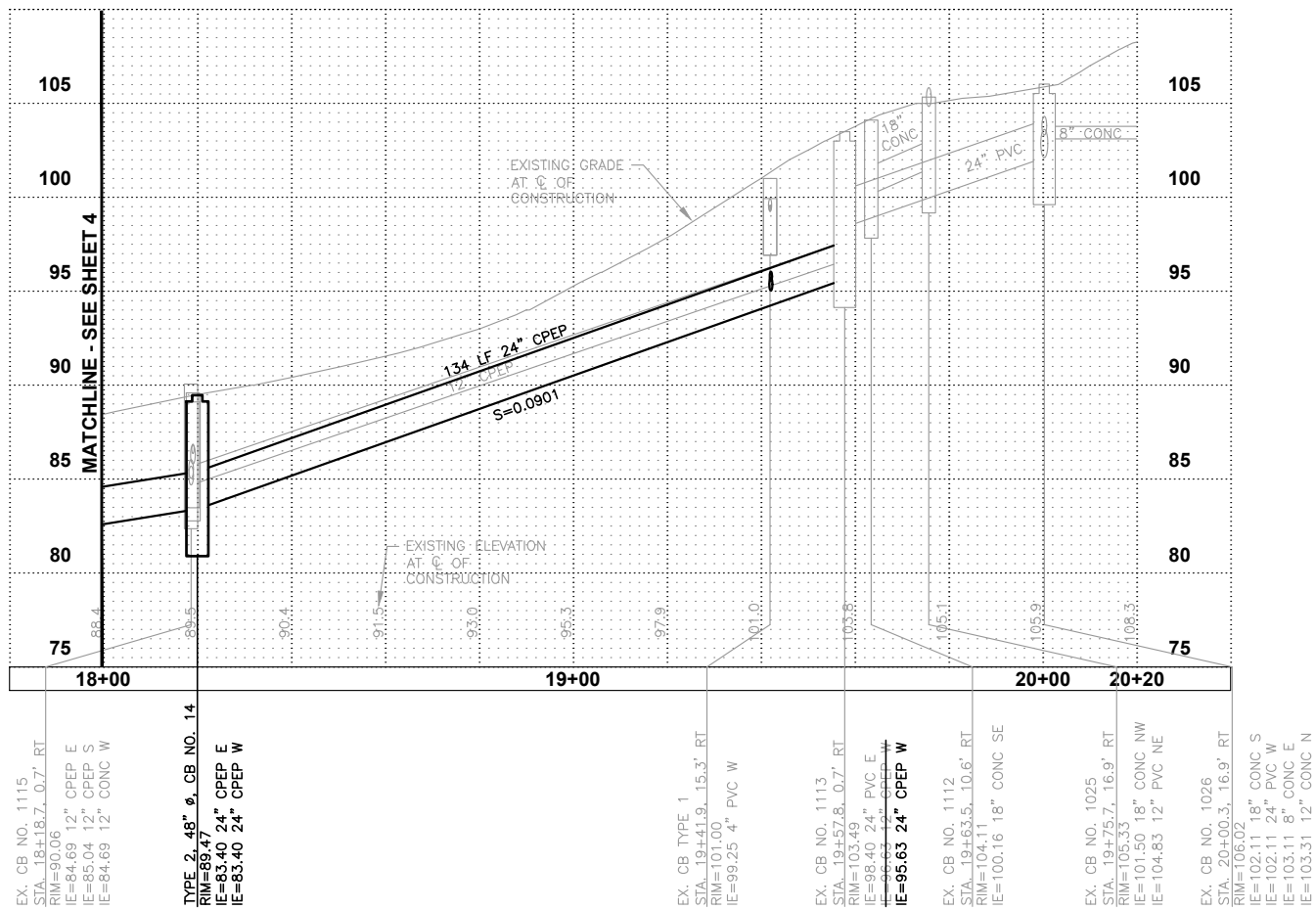
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TOWN OF YARROW POINT
KING WASHINGTON
NE 42ND STREET/91ST AVENUE NE
STORMWATER & UGC PROJECT
PLAN AND PROFILE

SHEET: 4
OF: 21
JOB NO.: 19456
DWG: PLAN AND PROFILE

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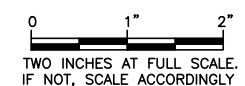
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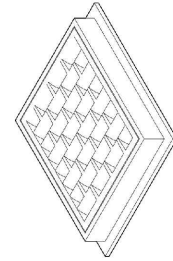
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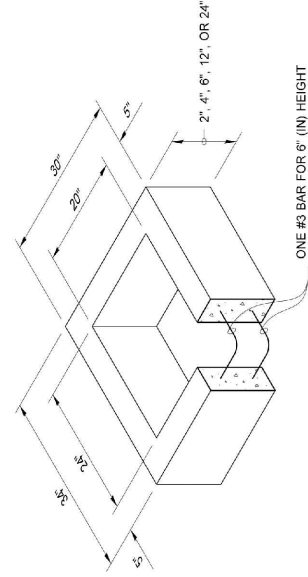
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OF: 21
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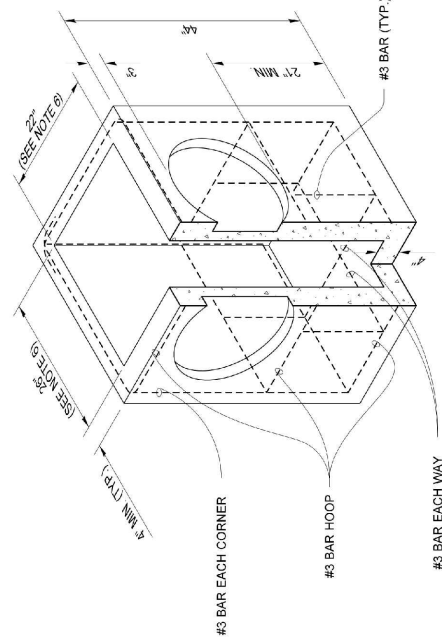
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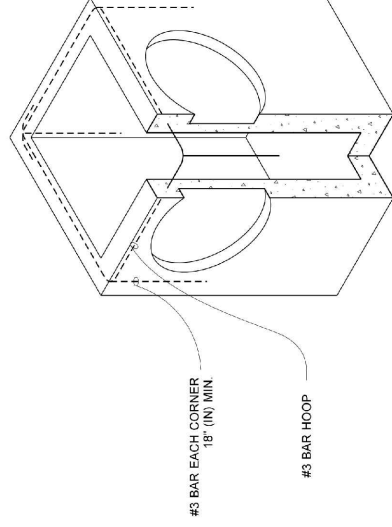
FRAME AND VANED GRATE



RECTANGULAR ADJUSTMENT SECTION



PRECAST BASE SECTION



ALTERNATIVE PRECAST BASE SECTION

PIPE ALLOWANCES	
PIPE MATERIAL	MAXIMUM INSIDE DIAMETER (INCHES)
REINFORCED OR PLAIN CONCRETE	12"
ALL METAL PIPE	15"
CFSPSP * (STD. SPEC. SECT. 9-05.20)	12"
SOLID WALL PVC (STD. SPEC. SECT. 9-05.12(1))	15"
PROFILE WALL PVC (STD. SPEC. SECT. 9-05.12(2))	15"

* CORRUGATED POLYETHYLENE STORM SEWER PIPE

NOTES

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



Julie Heilman
Heilman, Julie
Jan 25 2017 2:53 PM

CATCH BASIN TYPE 1

STANDARD PLAN B-5.20-02

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION
Jan 25, 2017 6:48 AM

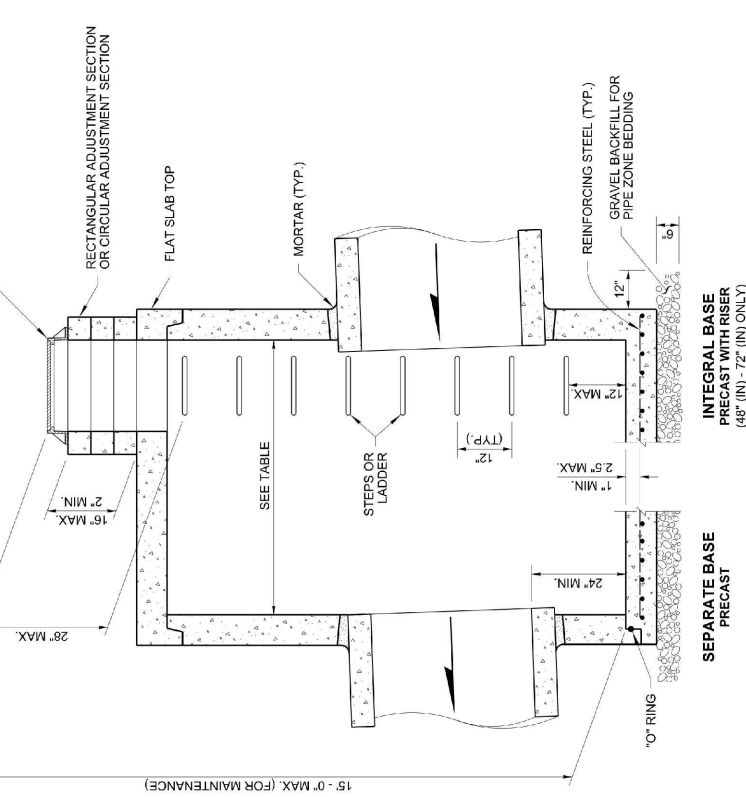
STATE DESIGN ENGINEER

Washington State Department of Transportation

DRAWN BY: FERN LIDDELL

NOTES

- No steps are required when height is 4' or less.
- The bottom of the precast catch basin may be sloped to facilitate cleaning.
- The rectangular frame and grate may be installed with the flange up or down. The frame may be cast into the adjustment section.
- Knockouts shall have a wall thickness of 2" (in) minimum to 2.5" (in) maximum. Provide a 1.5" (in) minimum gap between the knockout wall and the outside of the pipe. After the pipe is installed, fill the gap with joint mortar in accordance with **Standard Specification Section 9-04.3**.



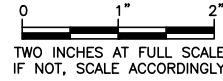
CATCH BASIN DIMENSIONS

CATCH BASIN DIAMETER	MIN. WALL THICKNESS	MIN. BASE THICKNESS	MAXIMUM KNOCKOUT SIZE	MINIMUM DISTANCE BETWEEN KNOCKOUTS
48"	4"	6"	36"	8"
54"	4.5"	8"	42"	8"
60"	5"	8"	48"	8"
72"	6"	8"	60"	12"
84"	8"	12"	72"	12"
96"	8"	12"	84"	12"
120"	10"	12"	96"	12"
144"	12"	12"	108"	12"

PIPE ALLOWANCES

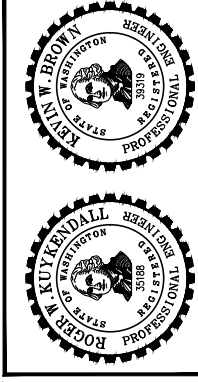
CATCH BASIN DIAMETER	PIPE MATERIAL WITH MAXIMUM INSIDE DIAMETER		SOLID WALL PVC (3)	PROFILE WALL PVC (3)
	CONCRETE	ALL METAL		
48"	24"	30"	24"	30"
54"	30"	36"	30"	36"
60"	36"	42"	36"	42"
72"	42"	54"	42"	48"
84"	54"	60"	54"	48"
96"	60"	72"	60"	48"
120"	66"	84"	60"	48"
144"	78"	96"	60"	48"

- Corrugated Polyethylene Storm Sewer Pipe (See **Standard Specification Section 9-05.20**)
- (See **Standard Specification Section 9-05.12(1)**)
- (See **Standard Specification Section 9-05.12(2)**)
- Polypropylene Pipe (See **Standard Specification Section 9-05.24**)



SHEET: 6
OF: 21
JOB NO.: 19456
DWG: DETAILS

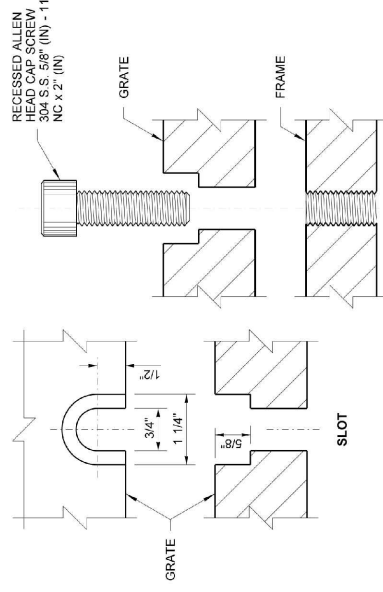
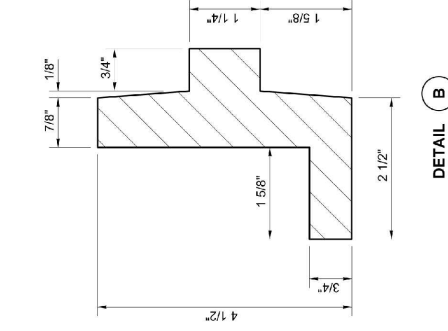
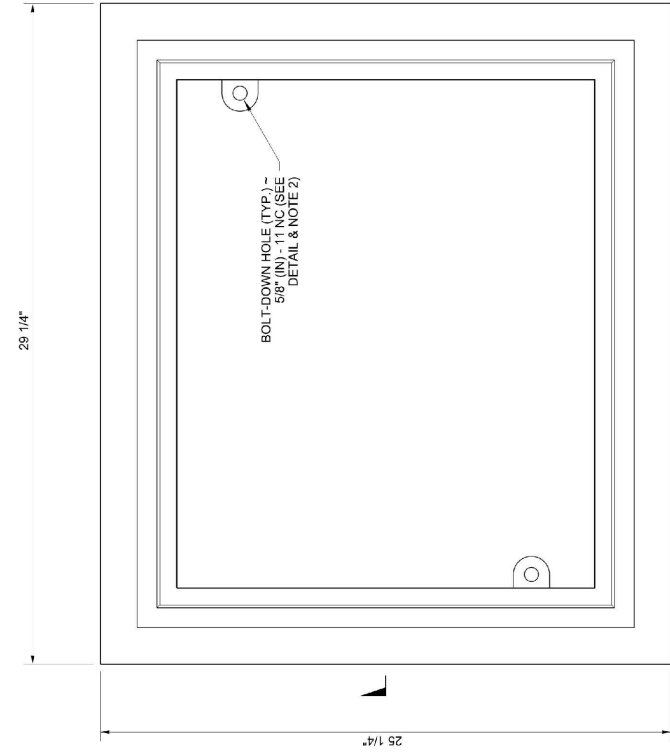
TOWN OF YARROW POINT
KING WASHINGTON
NE 42ND STREET/91ST AVENUE NE
STORMWATER & UGC PROJECT
STORM DETAILS



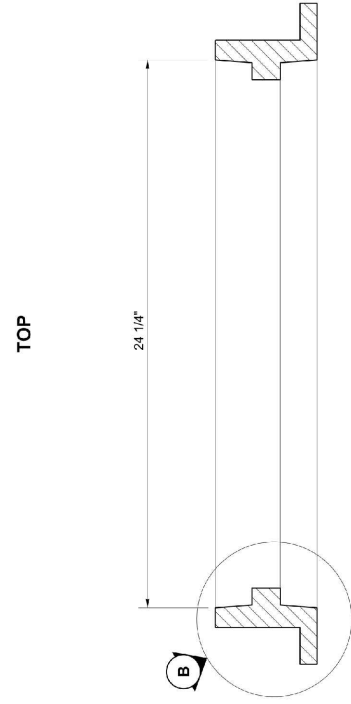
No. REVISION DATE APPD
60% SUBMITTAL CONSTRUCTION NOT FOR

DATE: JUN 2019
DRAWN: C.J.B.
CHECKED: K.W.B.
APPROVED: R.W.K

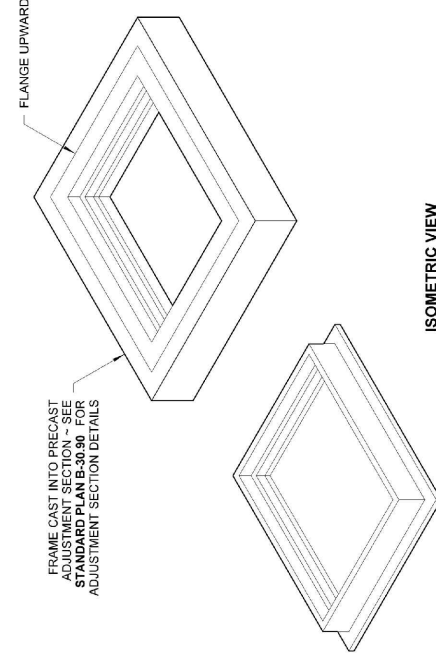
Gray & Osborne, Inc.
CONSULTING ENGINEERS
3710 168TH STREET NE, BLDG. B, SUITE 210
ARLINGTON, WA 98223 • (360) 434-5960



BOLT-DOWN DETAILS
SEE NOTE 2



DRAWN BY: FERN LIDDELL

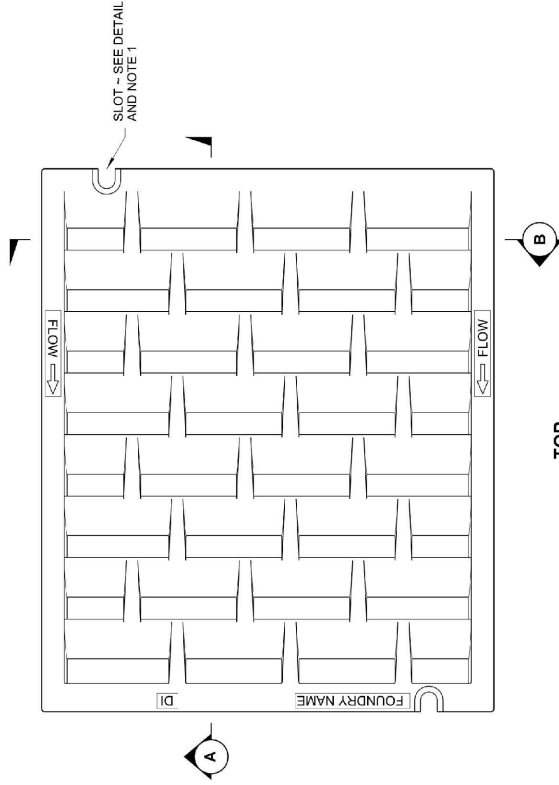


ISOMETRIC VIEW
SHOWING THE VARIATIONS


 Heilman, Julie
 Feb 20 2018 12:52 PM
**RECTANGULAR FRAME
(REVERSIBLE)**
STANDARD PLAN B-30.10-03
 SHEET 1 OF 1 SHEET
 APPROVED FOR PUBLICATION
 10/27/2018 10:58 AM
 STATE ENGINEERS
 Washington, State Department of Transportation

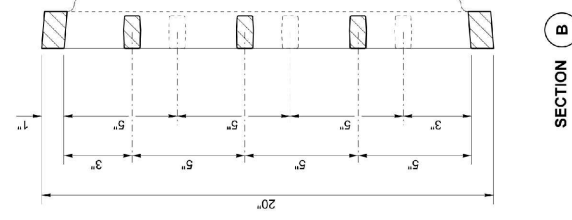
NOTES

1. This frame is designed to accommodate 20" (in) x 24" (in) grates or covers as shown on **Standard Plans B-30.20, B-30.30, B-30.40, and B-30.50.**
2. Bolt-down capability is required on all frames, grates, and covers, unless specified otherwise in the Contract. Provide 2 holes in the frame that are vertically aligned with the grate or cover slots. The frame shall accept the 304 Stainless Steel (S.S.) 5/8" (in) - 11 NC x 2" (in) allen head cap screw by being tapped, or other approved mechanism. Location of bolt-down holes varies by manufacturer.
3. Refer to **Standard Specification Section 9-05.15 and 9-05.15(2)** for additional requirements.

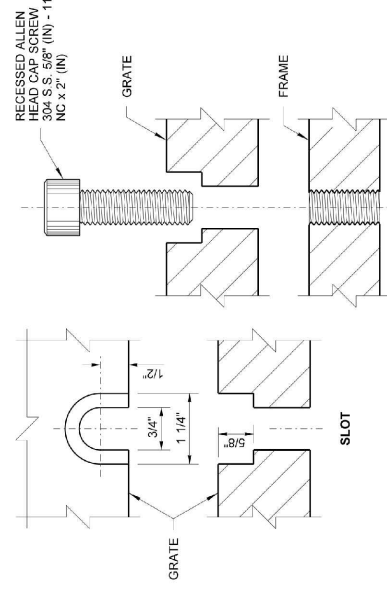


NOTES

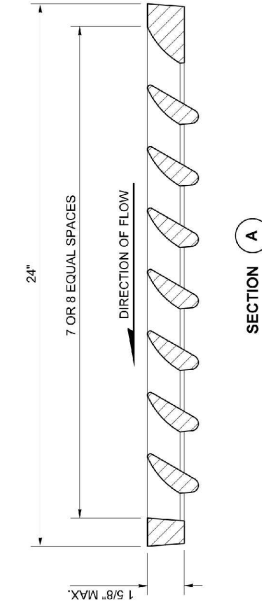
1. Bolt-down capability is required on all frames, grates, and covers, unless specified otherwise in the Contract. Provide 2 holes in the frame that are vertically aligned with the grate or cover slots. The frame shall accept the 304 Stainless Steel (S.S.) 5/8" (in) - 11 NC x 2" (in) allen head cap screw by being tapped, or other approved mechanism. Location of bolt-down holes varies by manufacturer.
2. Refer to **Standard Specification Section 9-05.15 and 9-05.15(2)** for additional requirements.
3. For frame details, see **Standard Plan B-30.10.**



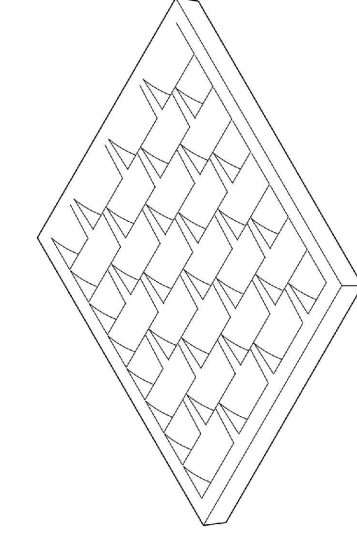
SECTION B




BOLT-DOWN DETAILS
SEE NOTE 1

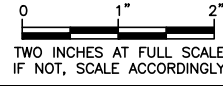


SECTION A




ISOMETRIC


 Heilman, Julie
 Feb 20 2018 12:54 PM
**RECTANGULAR
VANED GRATE**
STANDARD PLAN B-30.30-03
 SHEET 1 OF 1 SHEET
 APPROVED FOR PUBLICATION
 10/27/2018 10:58 AM
 STATE ENGINEERS
 Washington, State Department of Transportation




SHEET: 7
 OF: 21
 JOB NO.: 19456
 DWG: DETAILS

TOWN OF YARROW POINT
 KING WASHINGTON
 NE 42ND STREET/91ST AVENUE NE
 STORMWATER & UGC PROJECT
 STORM DETAILS

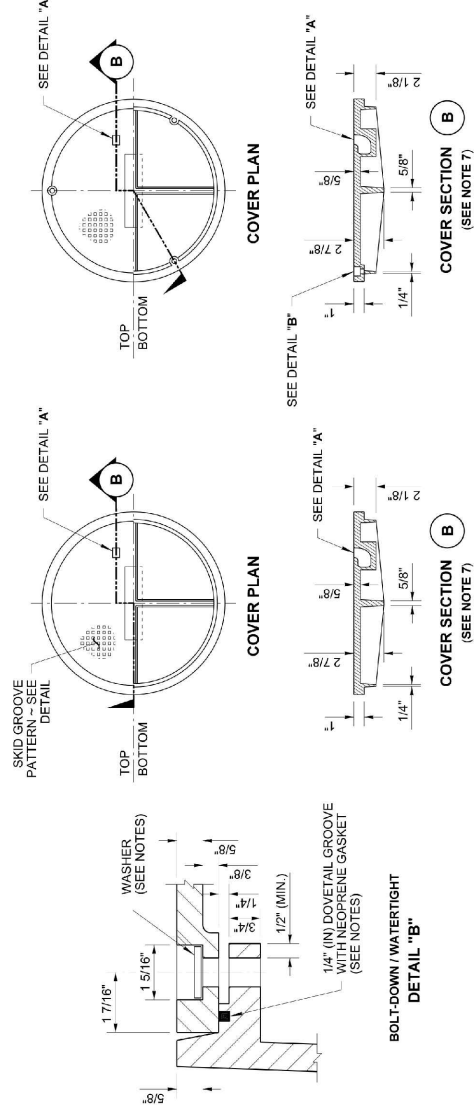
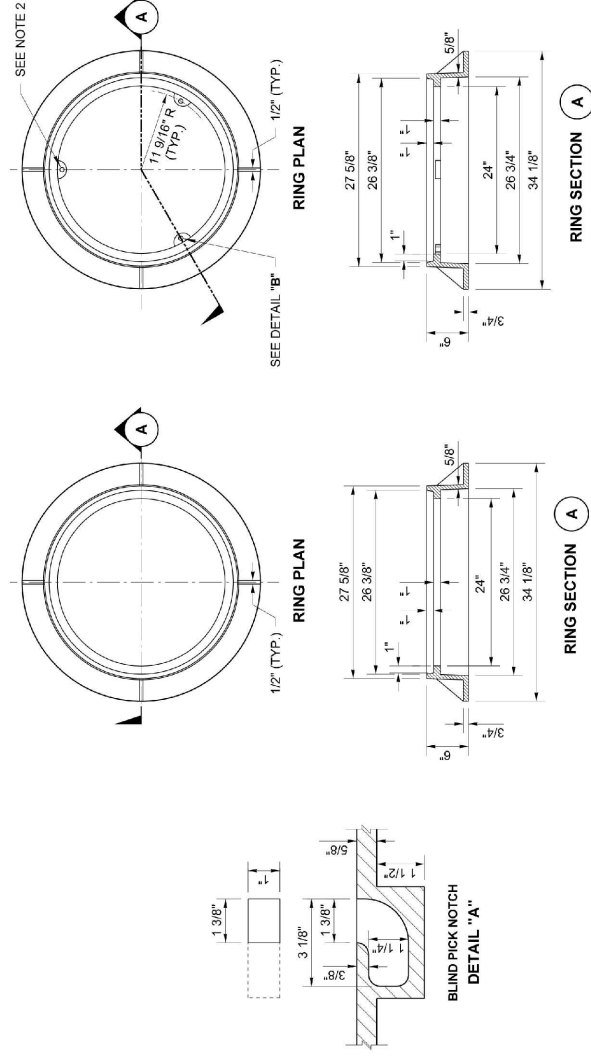

 Brown, Kevin W.
 Feb 27 2018 7:59 AM
ROBERT W. KRIDALL
 STATE OF WASHINGTON
 LICENSE NO. 35188
 REGISTERED PROFESSIONAL ENGINEER

No.	REVISION	DATE	APPD
60% SUBMITTAL NOT FOR CONSTRUCTION			

DATE: JUN 2019
 DRAWN: C.J.B.
 CHECKED: K.W.B.
 APPROVED: R.W.K.

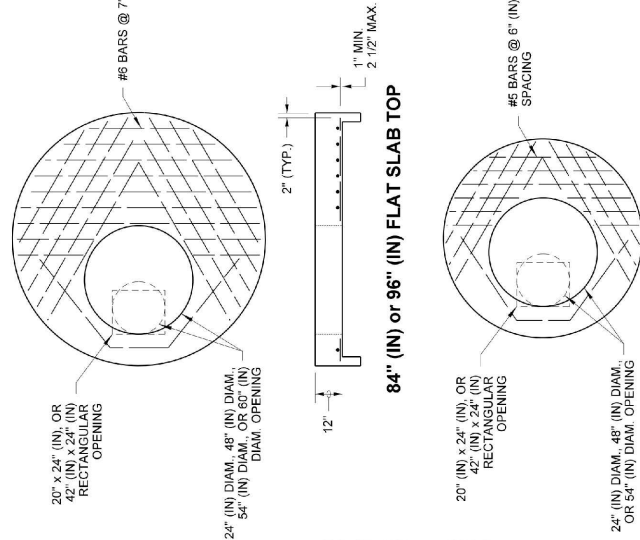

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 ARLINGTON, WA 98223 • (509) 434-5960

DRAWN BY: FERN LIDDELL



STANDARD TYPE 1

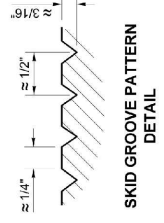
BOLT-DOWN / WATERTIGHT TYPE 2



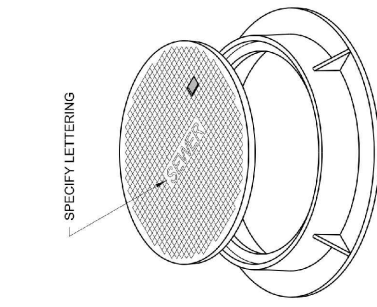
DRAWN BY: FERN LIDDELL

NOTES

- The gasket and groove may be in the seat (frame) or in the underside of the cover. The gasket may be "T" shaped in section. The groove may be cast or machined.
- Bolt-down capability is required on all frames, grates, and covers, unless specified otherwise in the Contract. Provide 3 holes in the frame that are vertically aligned with the grate or cover slots. The frame shall accept the 304 Stainless Steel (S.S.) 5/8" - 11 NC x 2" (in) allen head cap screw by being tapped, or other approved mechanism. Location of bolt down holes varies by manufacturer.
- For bolt-down manhole ring and covers that are not designated "Watertight," the neoprene gasket, groove, and washer are not required.
- Washer shall be neoprene (Detail "B").
- In lieu of blind pick notch for manhole covers, a single 1" (in) pick hole is acceptable. Hole location and number of holes may vary by manufacturer.
- Alternative reinforcing designs are acceptable in lieu of the rib design.
- For clarity, the vertical scale of the Cover Section has been exaggerated, it is 1.5 times the horizontal scale (1H:1.5V).



SKID GROOVE PATTERN DETAIL

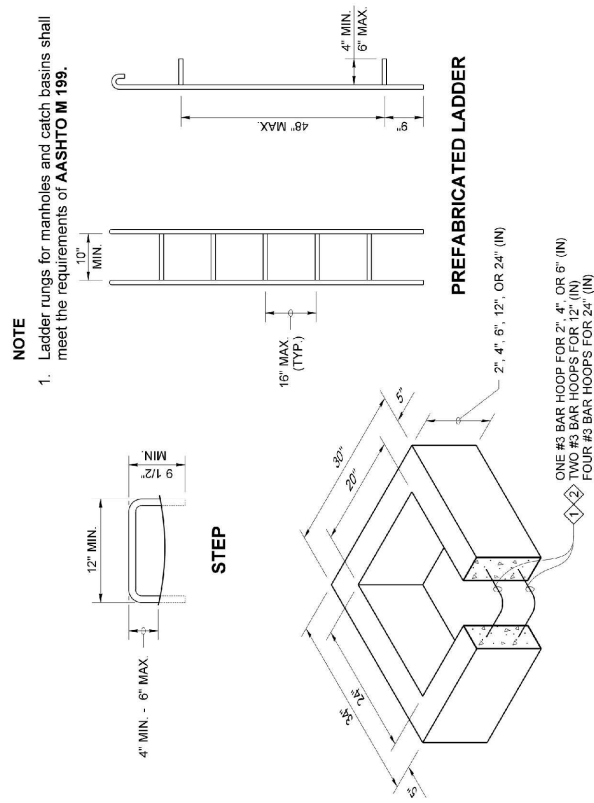


ISOMETRIC VIEW



Julie Heilman
Professional Engineer
No. 352073
Jan 25 2013 12:45 PM
Circulate: JHT
Jan 27 2018 7:59 AM

CIRCULAR FRAME (RING) AND COVER
STANDARD PLAN B-30.70-04
SHEET 1 OF 1 SHEET
APPROVED FOR PUBLICATION
STATE DESIGN ENGINEER
Washington State Department of Transportation

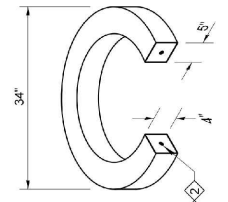


PREFABRICATED LADDER

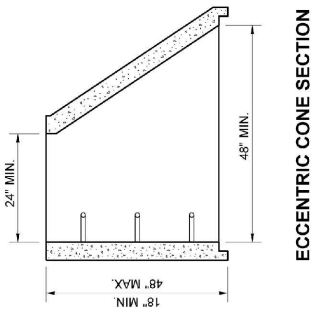
NOTE
1. Ladder rungs for manholes and catch basins shall meet the requirements of AASHTO M 195.

RECTANGULAR ADJUSTMENT SECTION

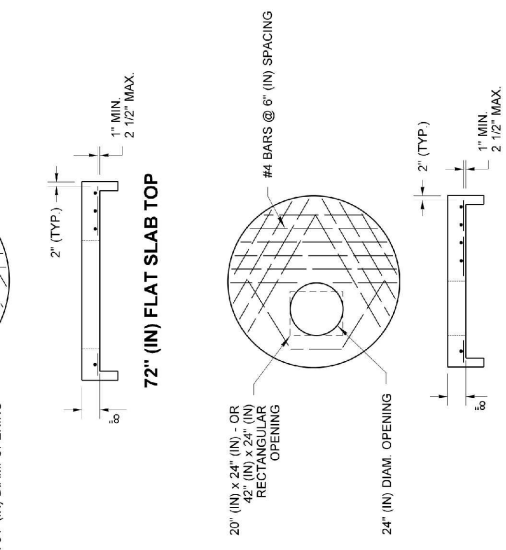
- As an acceptable alternative to rebar, wire mesh having a minimum area of 0.12 square inches per foot may be used for adjustment sections.
- As an acceptable alternative to conventional steel reinforcement, manufacturers shall use Synthetic Structural Fibers meeting the requirements of Standard Specification Section 9-05.50(10).



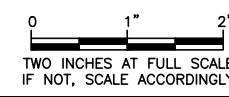
CIRCULAR ADJUSTMENT SECTION
For rectangular and circular adjustment sections, approved alternate material compositions are acceptable in lieu of precast concrete designs



ECCENTRIC CONE SECTION

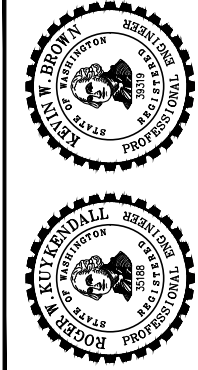


48" (IN), 54", or 60" (IN) FLAT SLAB TOP



SHEET: 8
OF: 21
JOB NO.: 19456
DWG: DETAILS

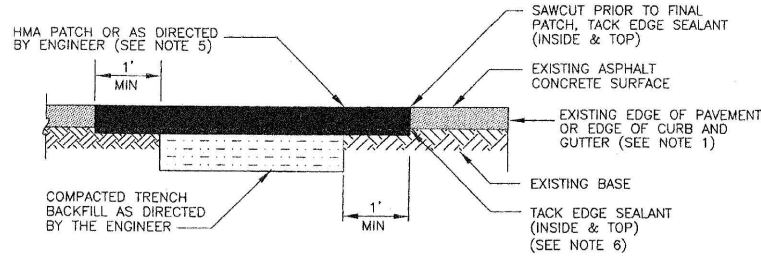
TOWN OF YARROW POINT
KING WASHINGTON
NE 42ND STREET/91ST AVENUE NE
STORMWATER & UGC PROJECT
STORM DETAILS



DATE: JUN 2019	DRAWN: C.J.L.B.	CHECKED: K.W.B.	APPROVED: R.W.K
60% SUBMITTAL		REVISION	DATE
CONSTRUCTION		APPD	
No.			

DATE: JUN 2019
DRAWN: C.J.L.B.
CHECKED: K.W.B.
APPROVED: R.W.K

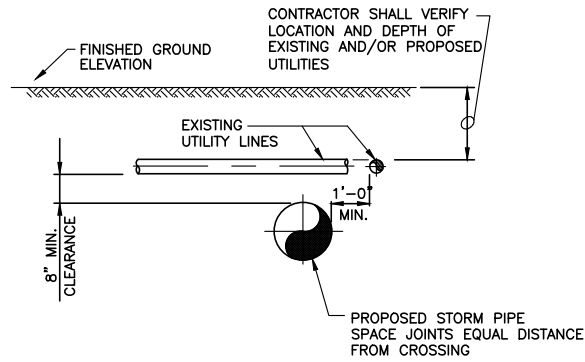
Gray & Osborne, Inc.
CONSULTING ENGINEERS
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ARLINGTON, WA 98223 • (360) 434-5960



TYPICAL PATCH FOR PAVEMENT

NOTES:

- IF THE DISTANCE FROM THE EDGE OF PATCH TO THE EDGE OF PAVEMENT OR CURB AND GUTTER IS LESS THAN 3', THE PATCH MUST CONTINUE TO THE EXISTING EDGE, UNLESS ROADWAY IS OVERLAID WITHIN 60 DAYS. HMA PER THE SPECIFICATIONS
- HOT MIX ASPHALT SHALL BE HMA PER THE SPECIFICATIONS
- ALL TRENCH BACKFILL SHALL BE CRUSHED SURFACING TOP COURSE MATERIAL FOR PERPENDICULAR TRENCHES, OR AS DIRECTED BY ENGINEER.
-
- PATCH MUST ALWAYS BE 1" DEEPER THAN EXISTING ASPHALT; MAX 6" DEEP, OR AS DIRECTED BY ENGINEER.
- TOP SEAL-USE AR4000W AND PROVIDE A SAND BLANKET TO ALLEVIATE TRAILING.

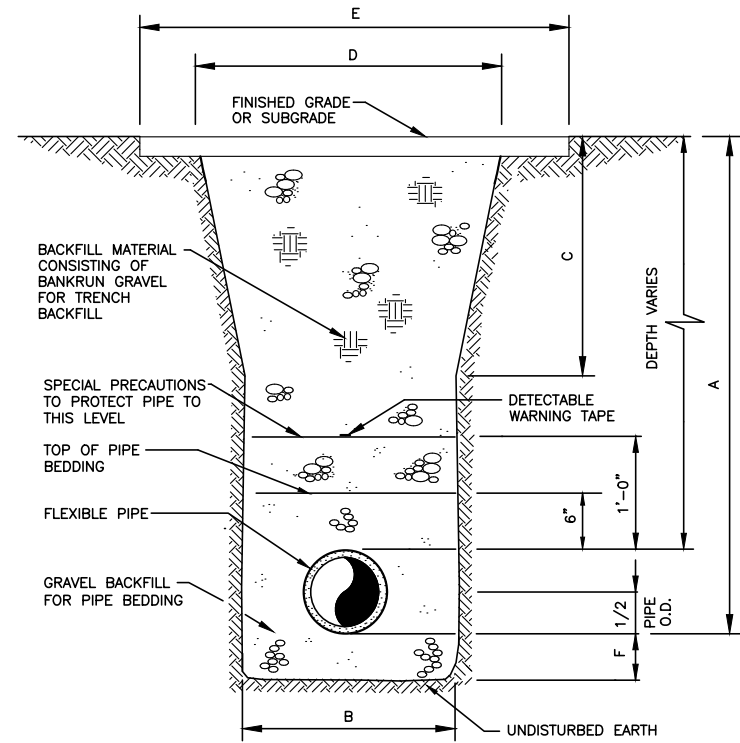


NOTES:

- BACKFILL ANY CROSSING WITH LESS THAN 12" CLEARANCE WITH CDF.

TYPICAL UTILITY CROSSING

NTS



FLEXIBLE PIPE TRENCH SECTION

NOT TO SCALE

4", 6", & 8" DIAMETER PIPE

	6" OR LESS	8"	10"	12"	14"	16"	18"	20"	22"	24"	26"	28"
A	1.50'	1.50'	1.75'	2.25'	2.75'	3.25'	3.75'	4.25'	4.75'	5.25'	5.75'	6.25'
B	2.50'											
C	6.50'	6.50'	7.00'	7.00'	8.00'	9.00'	10.00'	11.00'	12.00'	13.00'	14.00'	15.00'
D	6.50'	6.50'	7.00'	8.00'	9.00'	10.00'	11.00'	12.00'	13.00'	14.00'	15.00'	16.00'
E	4 in											
F	4 in											

12" DIAMETER PIPE

	6" OR LESS	8"	10"	12"	14"	16"	18"	20"	22"	24"	26"	28"
A	1.50'	1.50'	1.75'	2.25'	2.75'	3.25'	3.75'	4.25'	4.75'	5.25'	5.75'	6.25'
B	3.00'											
C	6.00'	6.00'	6.50'	7.50'	8.50'	9.50'	10.50'	11.50'	12.50'	13.50'	14.50'	15.50'
D	7.00'	7.00'	7.50'	8.50'	9.50'	10.50'	11.50'	12.50'	13.50'	14.50'	15.50'	16.50'
E	4 in											
F	4 in											

18" DIAMETER PIPE

	6" OR LESS	8"	10"	12"	14"	16"	18"	20"	22"	24"	26"	28"
A	1.50'	1.50'	1.75'	2.25'	2.75'	3.25'	3.75'	4.25'	4.75'	5.25'	5.75'	6.25'
B	3.75'											
C	6.75'	6.75'	7.25'	8.25'	9.25'	10.25'	11.25'	12.25'	13.25'	14.25'	15.25'	16.25'
D	7.75'	7.75'	8.25'	9.25'	10.25'	11.25'	12.25'	13.25'	14.25'	15.25'	16.25'	17.25'
E	6 in											
F	6 in											

24" DIAMETER PIPE

	6" OR LESS	8"	10"	12"	14"	16"	18"	20"	22"	24"	26"	28"
A	1.50'	1.50'	1.75'	2.25'	2.75'	3.25'	3.75'	4.25'	4.75'	5.25'	5.75'	6.25'
B	5.25'											
C	8.25'	8.25'	8.75'	9.75'	10.75'	11.75'	12.75'	13.75'	14.75'	15.75'	16.75'	17.75'
D	9.25'	9.25'	9.75'	10.75'	11.75'	12.75'	13.75'	14.75'	15.75'	16.75'	17.75'	18.75'
E	6 in											
F	6 in											

PAYMENT LIMIT SCHEDULE

NOT TO SCALE

TOWN OF YARROW POINT
4030 95TH AVENUE NE
YARROW POINT, WA 98004
P: (425) 454-6994 F: (425) 454-7899
towninfo@ci.yarrow-point.wa.us
www.ci.yarrow-point.wa.us



MODIFIED
RESTORATION DETAIL
AND PAVEMENT PATCHING

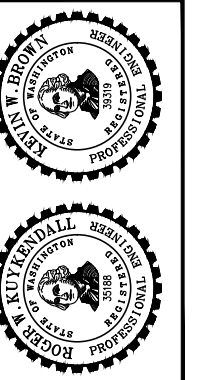
RD-13

LAST REVISED: 07/31/10

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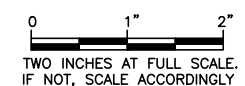
DATE: JUN 2019
DRAWN: C.J.B.
CHECKED: K.W.B.
APPROVED: R.W.K.

No.	REVISION	DATE	APPD
	60% SUBMITTAL CONSTRUCTION		



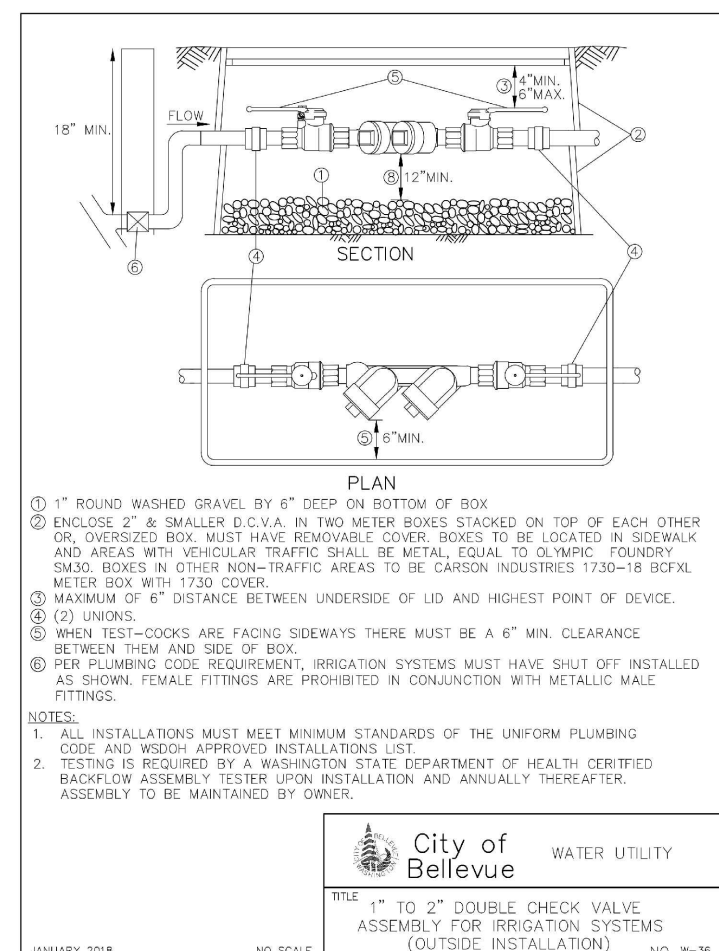
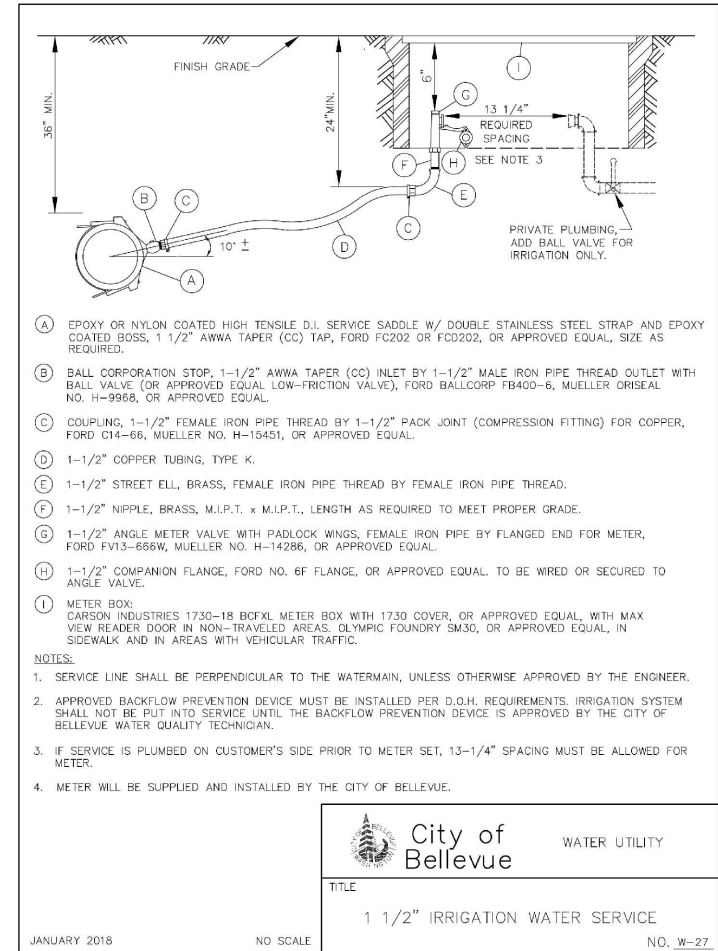
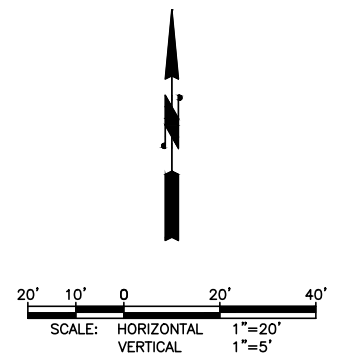
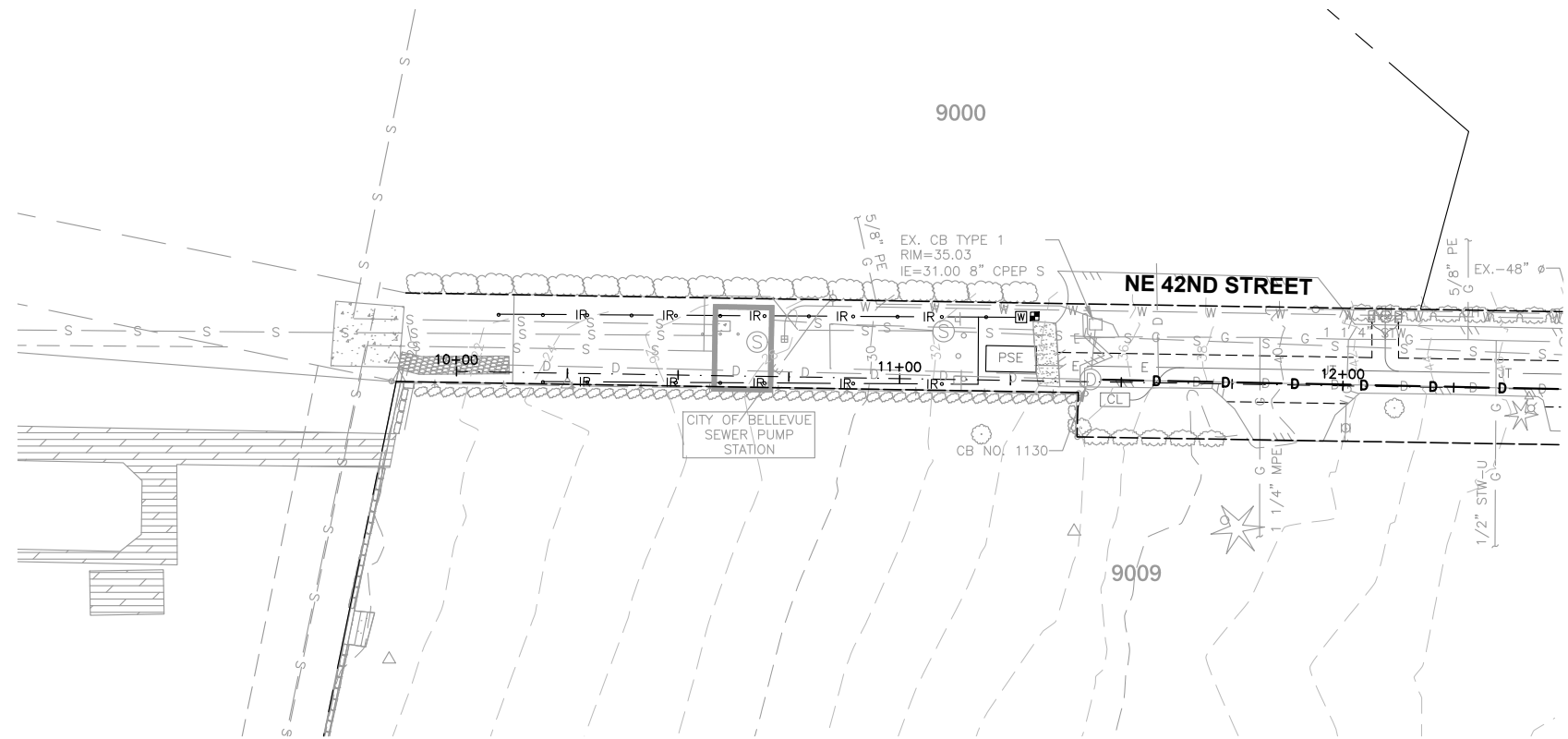
TOWN OF YARROW POINT
KING WASHINGTON
NE 42ND STREET/91ST AVENUE NE
STORMWATER & UGC PROJECT
STORM DETAILS

SHEET: 9
OF: 21
JOB NO.: 19456
DWG: DETAILS



M:\Yarrow Point\19456.00 42nd St - 91st Ave Storm\01 Design\PLANSET\Civil\DETAILS.dwg, 6/28/2019 2:51 PM, KEVIN BROWN

M:\Yarrow Point\19456.00 42nd St - 91st Ave Storm\01 Design\PLANSET\Civil\IRRIGATION PLAN.dwg - 6/28/2019 2:57 PM - KEVIN BROWN



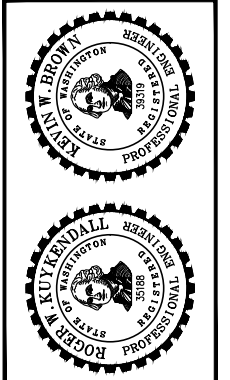
- (A) EPOXY OR NYLON COATED HIGH TENSILE D.I. SERVICE SADDLE W/ DOUBLE STAINLESS STEEL STRAP AND EPOXY COATED BOSS, 1 1/2" AWWA TAPER (CC) TAP, FORD FC202 OR FCD202, OR APPROVED EQUAL, SIZE AS REQUIRED.
 - (B) BALL CORPORATION STOP, 1-1/2" AWWA TAPER (CC) INLET BY 1-1/2" MALE IRON PIPE THREAD OUTLET WITH BALL VALVE (OR APPROVED EQUAL LOW-FRICTION VALVE), FORD BALLCORP FB400-6, MUELLER ORISAL NO. H-9968, OR APPROVED EQUAL.
 - (C) COUPLING, 1-1/2" FEMALE IRON PIPE THREAD BY 1-1/2" PACK JOINT (COMPRESSION FITTING) FOR COPPER, FORD C14-66, MUELLER NO. H-15451, OR APPROVED EQUAL.
 - (D) 1-1/2" COPPER TUBING, TYPE K.
 - (E) 1-1/2" STREET ELL, BRASS, FEMALE IRON PIPE THREAD BY FEMALE IRON PIPE THREAD.
 - (F) 1-1/2" NIPPLE, BRASS, M.I.P.T. x M.I.P.T., LENGTH AS REQUIRED TO MEET PROPER GRADE.
 - (G) 1-1/2" ANGLE METER VALVE WITH PADLOCK WINGS, FEMALE IRON PIPE BY FLANGED END FOR METER, FORD FV13-666W, MUELLER NO. H-14286, OR APPROVED EQUAL.
 - (H) 1-1/2" COMPANION FLANGE, FORD NO. 6F FLANGE, OR APPROVED EQUAL. TO BE WIRED OR SECURED TO ANGLE VALVE.
 - (I) METER BOX: CARSON INDUSTRIES 1730-18 BCFXL METER BOX WITH 1730 COVER, OR APPROVED EQUAL, WITH MAX VIEW READER DOOR IN NON-TRAVELED AREAS; OLYMPIC FOUNDRY SM30, OR APPROVED EQUAL, IN SIDEWALK AND IN AREAS WITH VEHICULAR TRAFFIC.
- NOTES:**
- SERVICE LINE SHALL BE PERPENDICULAR TO THE WATERMAIN, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
 - APPROVED BACKFLOW PREVENTION DEVICE MUST BE INSTALLED PER D.O.H. REQUIREMENTS. IRRIGATION SYSTEM SHALL NOT BE PUT INTO SERVICE UNTIL THE BACKFLOW PREVENTION DEVICE IS APPROVED BY THE CITY OF BELLEVUE WATER QUALITY TECHNICIAN.
 - IF SERVICE IS PLUMBED ON CUSTOMER'S SIDE PRIOR TO METER SET, 13-1/4" SPACING MUST BE ALLOWED FOR METER.
 - METER WILL BE SUPPLIED AND INSTALLED BY THE CITY OF BELLEVUE.

- (1) 1" ROUND WASHED GRAVEL BY 6" DEEP ON BOTTOM OF BOX
 - (2) ENCLOSE 2" & SMALLER D.C.V.A. IN TWO METER BOXES STACKED ON TOP OF EACH OTHER OR, OVERSIZED BOX. MUST HAVE REMOVABLE COVER. BOXES TO BE LOCATED IN SIDEWALK AND AREAS WITH VEHICULAR TRAFFIC SHALL BE METAL, EQUAL TO OLYMPIC FOUNDRY SM30. BOXES IN OTHER NON-TRAFFIC AREAS TO BE CARSON INDUSTRIES 1730-18 BCFXL METER BOX WITH 1730 COVER.
 - (3) MAXIMUM OF 6" DISTANCE BETWEEN UNDERSIDE OF LID AND HIGHEST POINT OF DEVICE.
 - (4) (2) UNIONS.
 - (5) WHEN TEST-COCKS ARE FACING SIDEWAYS THERE MUST BE A 6" MIN. CLEARANCE BETWEEN THEM AND SIDE OF BOX.
 - (6) PER PLUMBING CODE REQUIREMENT, IRRIGATION SYSTEMS MUST HAVE SHUT OFF INSTALLED AS SHOWN. FEMALE FITTINGS ARE PROHIBITED IN CONJUNCTION WITH METALLIC MALE FITTINGS.
- NOTES:**
- ALL INSTALLATIONS MUST MEET MINIMUM STANDARDS OF THE UNIFORM PLUMBING CODE AND WSDOH APPROVED INSTALLATIONS LIST.
 - TESTING IS REQUIRED BY A WASHINGTON STATE DEPARTMENT OF HEALTH CERTIFIED BACKFLOW ASSEMBLY TESTER UPON INSTALLATION AND ANNUALLY THEREAFTER. ASSEMBLY TO BE MAINTAINED BY OWNER.

Gray & Osborne, Inc.
CONSULTING ENGINEERS
3710 168TH STREET NE, BLDG. B, SUITE 210
ARLINGTON, WA 98223 • (360) 434-5960

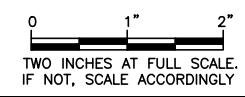
DATE: JUN 2019
DRAWN: C.J.B.
CHECKED: K.W.B.
APPROVED: R.W.K.

REVISION	DATE	APPD
60% SUBMITTAL NOT FOR CONSTRUCTION		
No.		

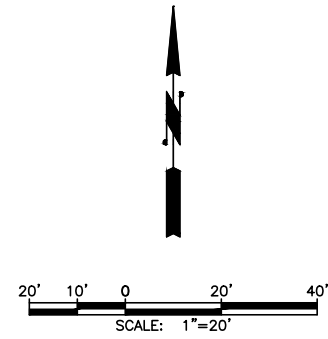
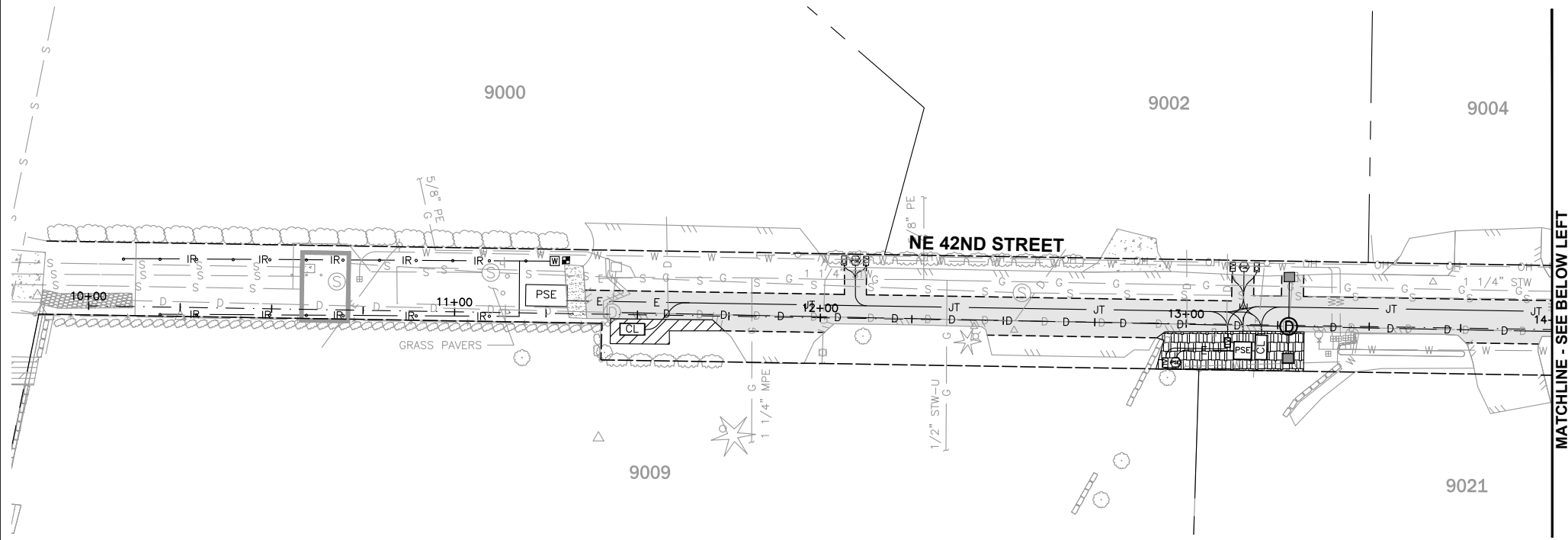


TOWN OF YARROW POINT
WASHINGTON
KING
NE 42ND STREET/91ST AVENUE NE
STORMWATER & UGC PROJECT
IRRIGATION PLAN

SHEET: 17
OF: 21
JOB NO.: 19456
DWG: IRRIGATION PLAN

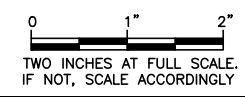
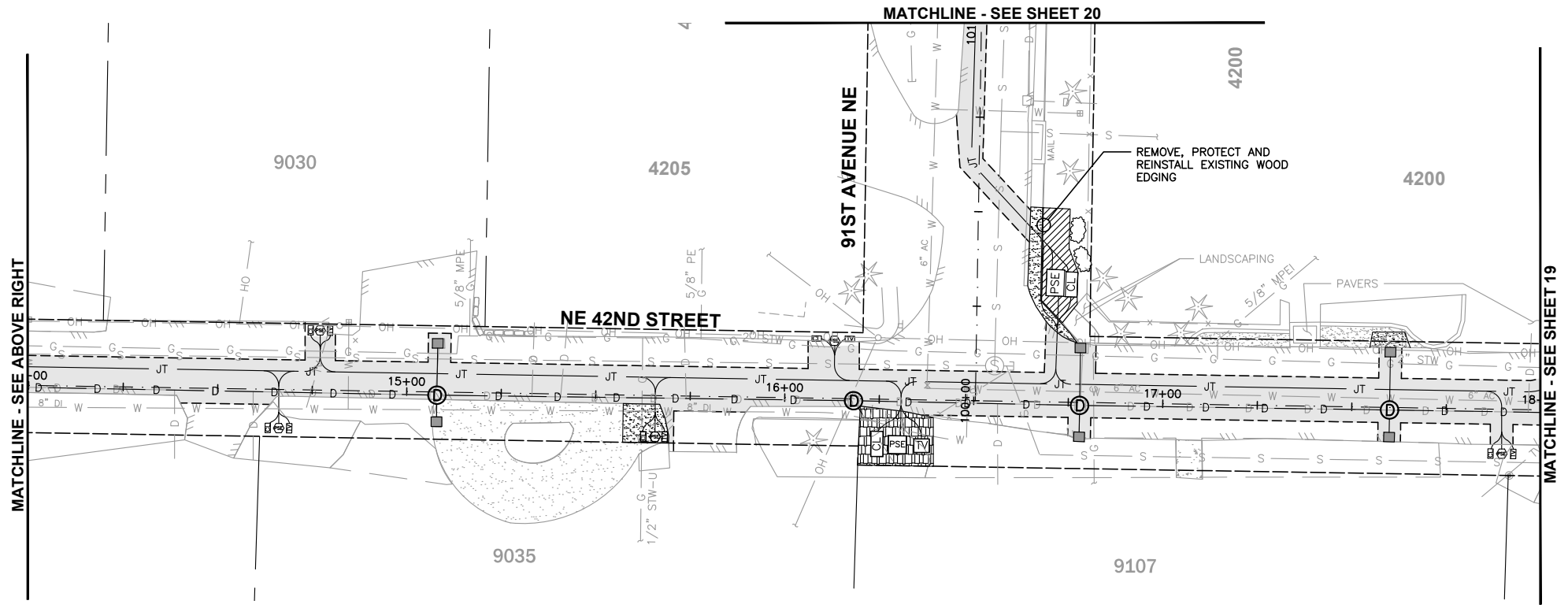


M:\Yarrow Point\19456.00 42nd St - 91st Ave Storm\01 Design\PLANSET\Civil\RESTORATION PLAN.dwg, 6/28/2019 2:58 PM, KEVIN BROWN



SURFACE RESTORATION LEGEND

SYMBOL	DESCRIPTION	REMARKS
[Hatched pattern]	HMA	SEE ROADWAY RESTORATION DETAILS
[Dotted pattern]	CONCRETE	SEE CONCRETE REPAIR DETAIL
[Cross-hatched pattern]	CRUSHED SURFACING TOP COURSE	2" DEPTH
[Horizontal line pattern]	MULCH	2" FINE BARK MULCH OVER 4" TOPSOIL
[Diagonal line pattern]	SEEDING	HYDROSEED OVER 4" TOPSOIL



Gray & Osborne, Inc.
 CONSULTING ENGINEERS
 3710 168TH STREET NE, BLDG. B, SUITE 210
 ARLINGTON, WA 98223 • (360) 434-5960

DATE: JUN 2019	DRAWN: C.J.B.	CHECKED: K.W.B.	APPROVED: R.W.K.
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No.	REVISION	DATE	APPD
60% SUBMITTAL NOT FOR CONSTRUCTION			

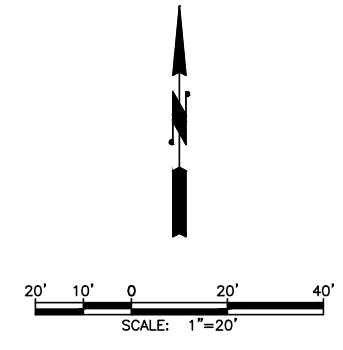
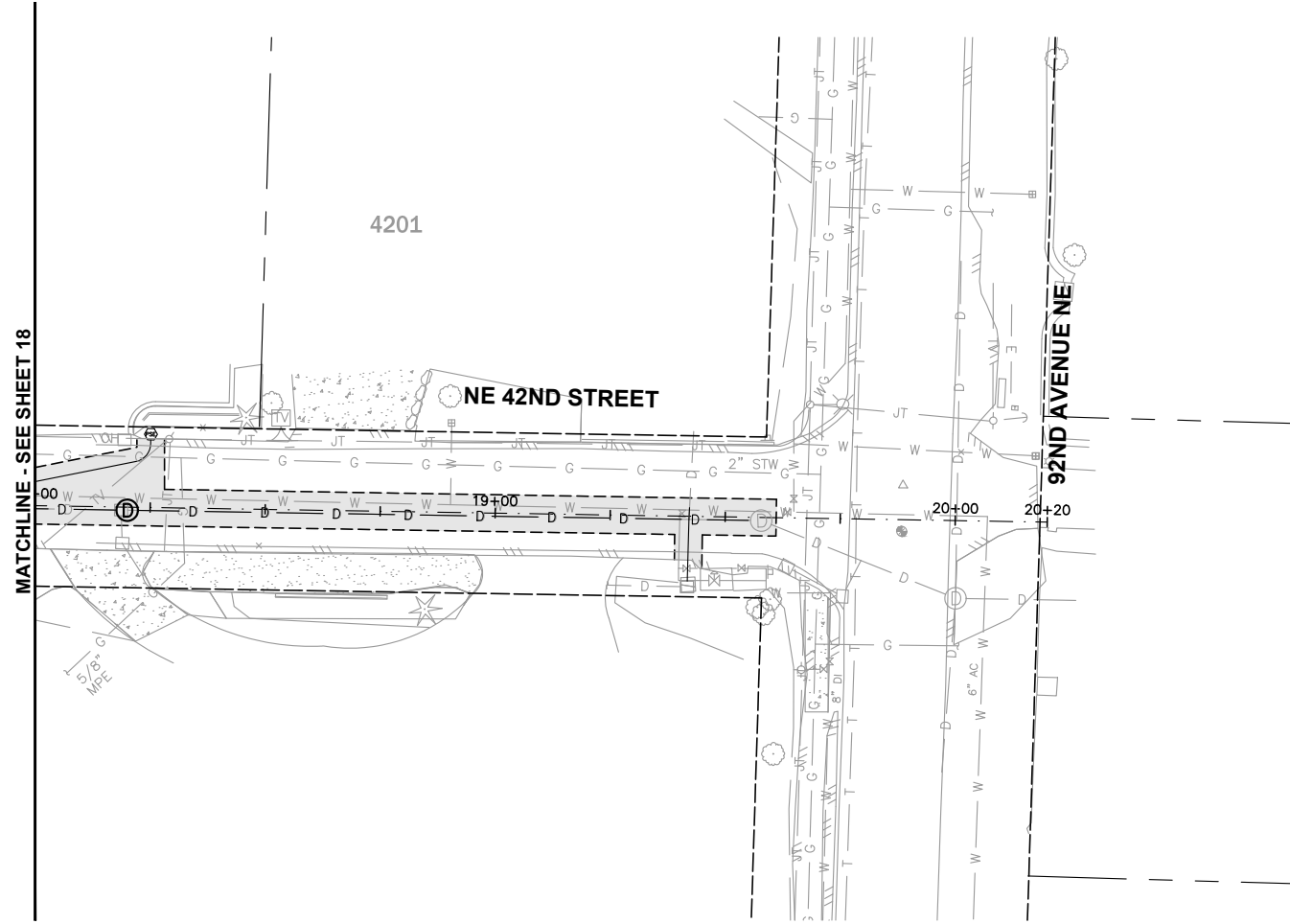
KEVIN W. BROWN
 ENGINEER
 No. 3239
 PROFESSIONAL SEAL

ROGER W. KRIDALL
 ENGINEER
 No. 3588
 PROFESSIONAL SEAL

TOWN OF YARROW POINT
 KING WASHINGTON
 NE 42ND STREET/91ST AVENUE NE
 STORMWATER & UGC PROJECT
 RESTORATION PLAN

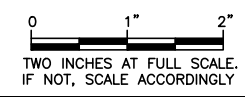
SHEET: 18
OF: 21
JOB NO.: 19456
DWG: RESTORATION PLAN

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SURFACE RESTORATION LEGEND

SYMBOL	DESCRIPTION	REMARKS
	HMA	SEE ROADWAY RESTORATION DETAILS
	CONCRETE	SEE CONCRETE REPAIR DETAIL
	CRUSHED SURFACING TOP COURSE	2" DEPTH
	MULCH	2" FINE BARK MULCH OVER 4" TOPSOIL
	SEEDING	HYDROSEED OVER 4" TOPSOIL



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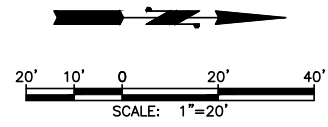
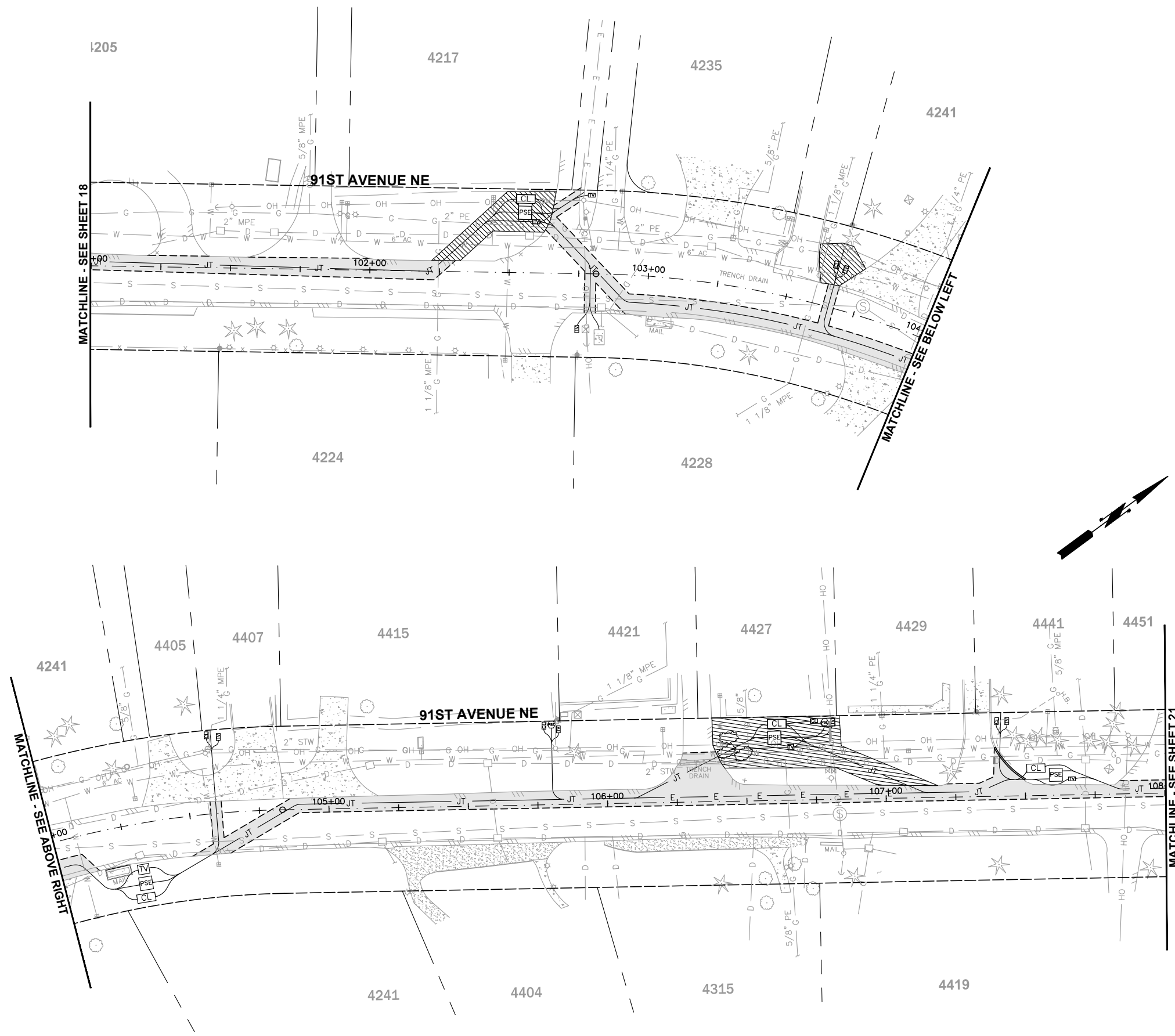
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SHEET: 19
OF: 21
JOB NO.: 19456
DWG: RESTORATION PLAN

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SURFACE RESTORATION LEGEND

SYMBOL	DESCRIPTION	REMARKS
	HMA	SEE ROADWAY RESTORATION DETAILS
	CONCRETE	SEE CONCRETE REPAIR DETAIL
	CRUSHED SURFACING TOP COURSE	2" DEPTH
	MULCH	2" FINE BARK MULCH OVER 4" TOPSOIL
	SEEDING	HYDROSEED OVER 4" TOPSOIL

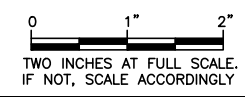
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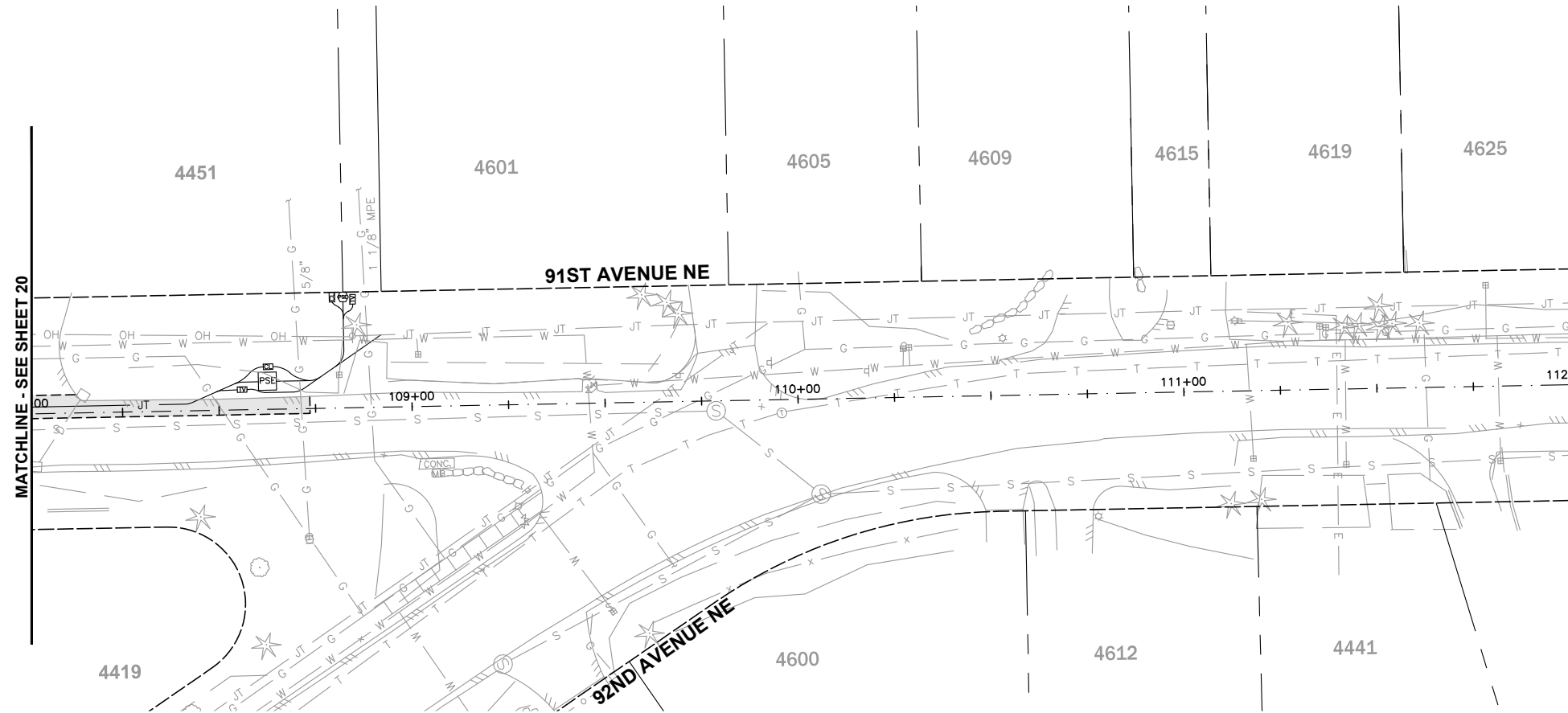
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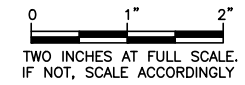
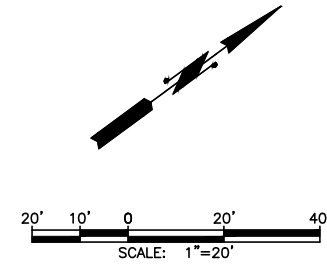


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SURFACE RESTORATION LEGEND

SYMBOL	DESCRIPTION	REMARKS
[Pattern: Dotted]	HMA	SEE ROADWAY RESTORATION DETAILS
[Pattern: Stippled]	CONCRETE	SEE CONCRETE REPAIR DETAIL
[Pattern: Horizontal lines]	CRUSHED SURFACING TOP COURSE	2" DEPTH
[Pattern: Vertical lines]	MULCH	2" FINE BARK MULCH OVER 4" TOPSOIL
[Pattern: Diagonal lines]	SEEDING	HYDROSEED OVER 4" TOPSOIL



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