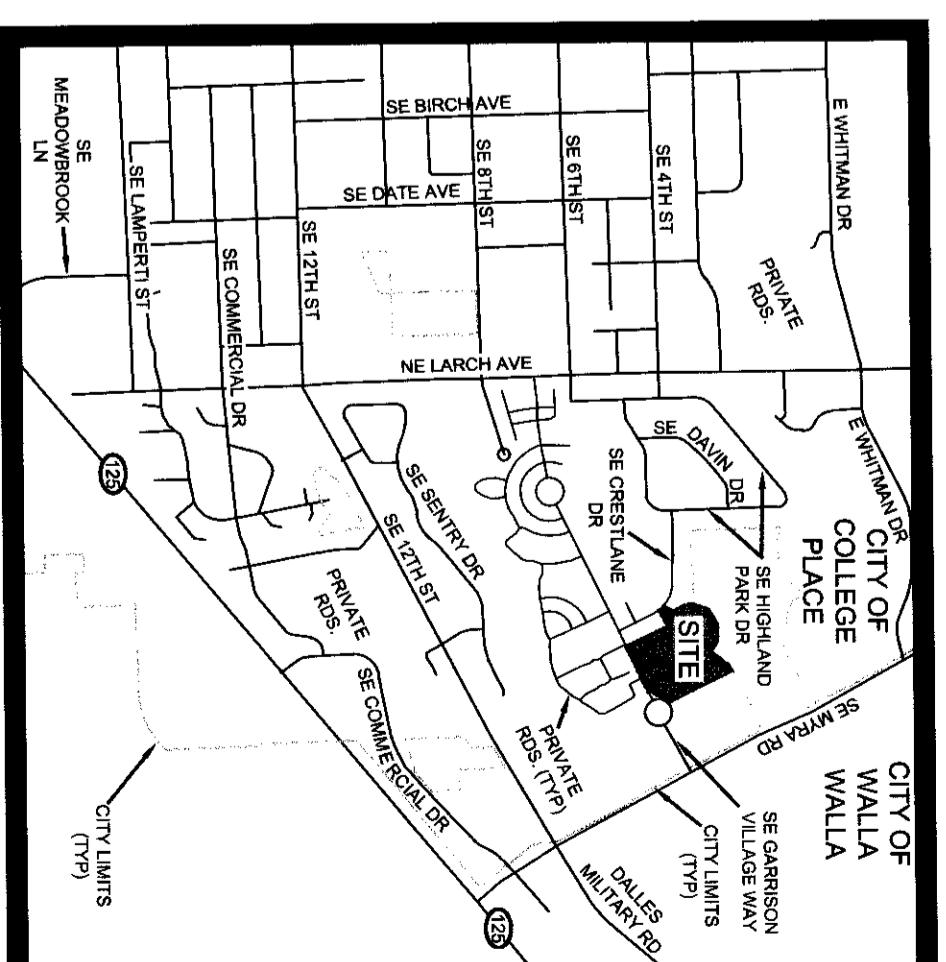
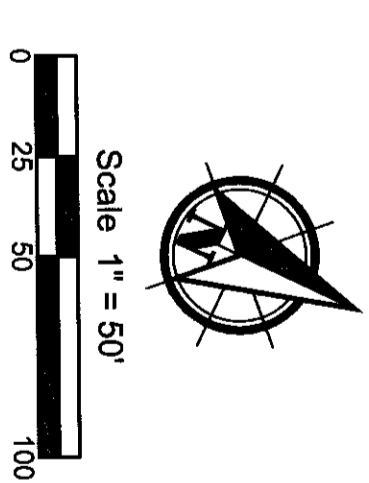
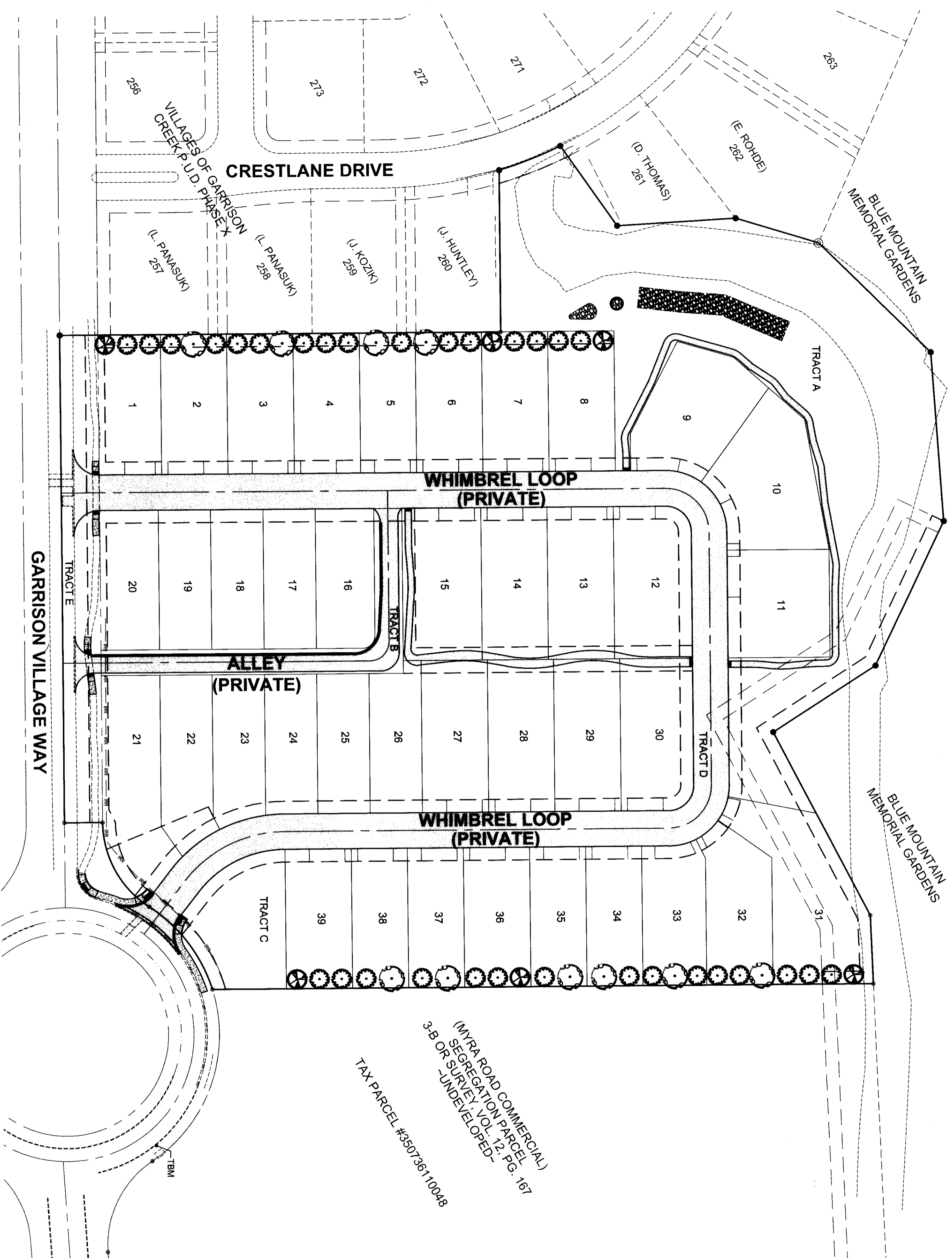


GARRISON VILLAGE XI

Located In The N.W. 1/4, Sec. 35, T. 7 N., R. 35 E., W.M., City Of College Place, Walla Walla County, WA



CITY OF COLLEGE PLACE	
Approved by City of College Place	Date

1. COVER
2. GENERAL NOTES
3. MASTER LEGEND
4. GRADING PLAN
5. EROSION CONTROL AND EMERGENCY STORM OVERFLOW PLAN
6. WHIMBREL LOOP PLAN & PROFILE
7. WHIMBREL LOOP PLAN & PROFILE
8. WHIMBREL LOOP PLAN & PROFILE
9. ALLEY PLAN & PROFILE
10. CITY OF COLLEGE PLACE STANDARD DETAILS
11. CITY OF COLLEGE PLACE STANDARD DETAILS
12. MISCELLANEOUS DETAILS
13. SIGNING STRIPING & ILLUMINATION PLAN
14. SITE UTILITY PLAN
15.

GENERAL NOTES

The Contractor shall schedule a preconstruction meeting with the City Engineer, prior to start of any construction activity. Contractor must give 48 hours notice and obtain all the required approvals and permits prior to any construction activity within City right-of-way or any activity involving City water, storm, sewer, or irrigation.

A minimum of two business days prior to beginning construction, the Contractor shall call 1-800-425-5555, Utility Notification Center (One Call), for marking location of existing utilities. Existing utility locations and elevations are approximate and other utilities may exist. The contractor shall be responsible for verifying the location, dimension and elevation of all existing utilities. Arrangements shall be made with respective utility companies for moving, abandoning, or maintaining their respective services.

Trench excavation within the project will comply with Washington State Department of Labor and Industries Safety Standards for Construction Work, Part N, Excavation, and Shoring (WAC 296-155-650 thru WAC 296-155-664.11).

The contractor shall at all times observe and comply with all federal, state, and local laws, ordinances, and regulations which in any manner affect the conduct or safety of the work. The Contractor shall obtain all necessary permits prior to beginning construction.

All work and materials required to complete the improvements as indicated on these plans shall be the responsibility of the General Contractor unless otherwise specified.

Whimbrel Loop paved road corresponds to exclusive City utility easement.

ADA compliance and inspection is the responsibility of the Developer on private roads.

SURVEY NOTES

Topographic survey data provided by HDJ Design Group, PLLC, 2015.

BASIS OF BEARINGS: N01°26'52"W along the centerline of Larch Street as shown on the Bohmer, Large Lot Segregation survey, recorded in County Auditor's Volume 10 of surveys at page 56, Walla Walla County, Washington.

VERTICAL DATUM FOR VILLAGES OF GARRISON CREEK PHASES I-X: NGVD 29

TBM: 1/2" Rebar with red cap stamped HDJ CONTROL, set near the SW corner of the western power transformer located on the north side of the NE quadrant of the SE Garrison Village Way roundabout.

OWNER/DEVELOPER:

Pahlsch Homes
 Attn: Chad Bettesworth
 63088 NE 18th Street, Suite 100
 Bend, OR 97701
 Phone: (541) 280-6242
 Email: chadcb@pahlschhomes.com

ENGINEER:

HDJ Design Group
 Attn: Jason Mattox
 6115 Burden Blvd, Suite E
 Pasco, WA 99301
 Phone: (509) 547-5119
 Email: MattoxJ@hdjdg.com

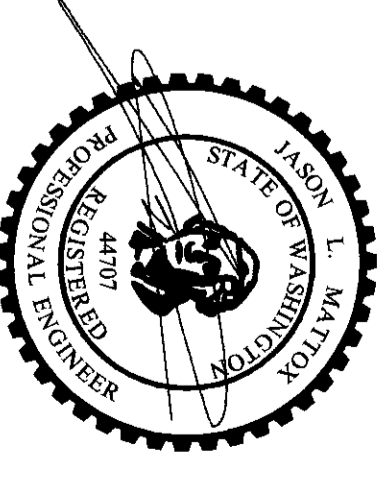
Utility Contact Numbers

COLUMBIA REA: (509) 526-4041
 CASCADE NATURAL GAS: (888) 522-1130
 CENTURY LINK: (800) 244-1111
 CHARTER COMMUNICATIONS: (866) 731-5429
 POCKET-NET: (509) 526-5026
 NOANET: (509) 456-3619

Utility Locate

Call 811
 2 Business Days
 Before Digging

No.	REVISION	DATE	BY	APPROVE
D	RECORD DRAWINGS - REVISION 1	07/13/16	BMV	JLM
C	RECORD DRAWINGS	07/13/16	BMV	JLM
B	ISSUED FOR PERMIT	06/12/16	SG	JLM
A	PRELIMINARY ISSUED FOR REVIEW	06/12/16	SG	JLM
	REVISION			



RECORD DRAWING

COVER FOR:
GARRISON VILLAGE XI
 A SUBDIVISION LOCATED IN THE CITY OF COLLEGE PLACE, WASHINGTON



6115 Burden Blvd, Suite E
 Pasco, WA 99301-8930
 509/547-5119
 306/895-3488
 509/547-5129 fax
 Internet: www.hdjdg.com

DESIGNED:	JLM
DRAWN BY:	JLM
CHECKED:	JLM
SCALE:	AS SHOWN
DATE:	JULY 2016
SHEET:	3645
	1
	15

GENERAL CONSTRUCTION NOTES

STANDARD PLAN 010.00

- ALL PROJECTS SHALL BE CONSTRUCTED PER THE LATEST EDITION OF THE WASHINGTON DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION (SRBMAC) AS AMENDED AND SUPPLEMENTED BY THE APWA SUPPLEMENT, THE CITY OF COLLEGE PLACE STANDARD SPECIFICATIONS AND THESE DRAINAGES WORK SHALL CONFORM TO FEDERAL, STATE AND LOCAL CODES.
- THE OWNER & CONTRACTOR SHALL PROVIDE PROPER SAFETY MEASURES IN ACCORDANCE WITH STATE AND FEDERAL SAFETY LAWS (WASHA, OSHA) AND SHALL PROTECT EMPLOYEES AND THE PUBLIC.
- THE CONTRACTOR SHALL HAVE A RESPONSIBLE PARTY WHO SHALL HAVE THE AUTHORITY TO REQUEST AND OBTAIN THE NECESSARY PERMITS FROM THE CITY TO HAVE A COPY OF THESE APPROVED PLANS STAMPED-FOR CONSTRUCTION" AND SIGNED BY THE CITY ENGINEER ON THE CONSTRUCTION SITE AT ALL TIMES.
- THE CONTRACTOR SHALL INVESTIGATE THE SITE AND VERIFY ALL CONDITIONS AND DIMENSIONS OF THE PROJECT AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCY IN THE CONTRACT DOCUMENTS REQUIRING MODIFICATION PRIOR TO PROCEEDING.
- ANY CHANGES TO THE DESIGN MUST BE APPROVED BY THE CITY OF COLLEGE PLACE CITY ENGINEER OR HIS DESIGNEE AND THE OWNER PRIOR TO IMPLEMENTING/CONSTRUCTING THE CHANGE.
- THE CONTRACTOR SHALL TAKE PREVENTATIVE MEASURES NECESSARY TO PROTECT EXISTING IMPROVEMENTS. THE CONTRACTOR SHALL, AT NO ADDITIONAL COST TO THE CITY OR COLLEGE PLACE, REPLACE ANY IMPROVEMENTS DAMAGED.
- THE LOCATIONS OF EXISTING UTILITIES ON THE PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR TO EXISTING UTILITIES AS WELL AS DAMAGES OCCURRING AS A RESULT OF THE LOCATION AND PROTECTION OF UTILITIES. BEFORE LOCATING EXISTING UTILITIES AND ANY OTHER UNDERGROUND INTERFERENCE, CALL 1-800-425-5867 OR AT TWO BUSINESS DAYS BEFORE YOU DIG. IF THE CONTRACTOR DISCOVERS ANY DISCREPANCIES BETWEEN THE PLANS AND THE CONDITIONS ENCOUNTERED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE DESIGN ENGINEER AND THE CITY OF COLLEGE PLACE PUBLIC WORKS DIRECTOR OR CITY ENGINEER.
- THE OWNER AND CONTRACTOR SHALL OBTAIN A CONSTRUCTION STORMWATER GENERAL PERMIT FROM THE DEPARTMENT OF ECOLOGY AND SHALL COMPLY WITH THE NPDES GCP (NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM GENERAL CONSTRUCTION PERMIT). THIS INCLUDES USING BEST MANAGEMENT PRACTICES (BMPs) TO PREVENT DISCHARGE OF STORM WATER AND SEDIMENTATION FROM THIS

STD 01000.11001006

- UPON COMPLETION, AND PRIOR TO FINAL APPROVAL OF THE WORK, THE OWNER OR AGENT SHALL PROVIDE THE CITY WITH AS-BUILT DRAWINGS CONFORMING TO CITY REQUIREMENTS (SEE "RECORD DRAWING REQUIREMENTS" DOCUMENT).
- THE ENGINEER OF RECORD SHALL PROVIDE THE CITY OF COLLEGE PLACE WITH WRITTEN, STAMPED CONFIRMATION THAT: "THE STORM DRAINAGE FACILITIES AS CONSTRUCTED WILL FUNCTION AS DESIGNED." THE STAMPED CERTIFICATION SHALL ALSO APPEAR ON THE RECORD DRAWINGS.
- WHERE A STORMWATER DESIGN HAS BEEN REQUIRED, FINAL LOT GRADING FOR LOTS COVERED BY THE DESIGN SHALL BE CONSISTENT WITH THE APPROVED STORMWATER DESIGN.
- TEST PITS EXCAVATED WITHIN THE LIMITS OF THE SITE SHALL BE REEXCAVATED AND REPLEATED WITH COMPACTED STRUCTURAL FILL AND CERTIFIED BY A LICENSED GEOTECHNICAL ENGINEER.
- UNLESS OTHERWISE SPECIFIED, CONCRETE USED IN PRODUCTS APPROVED FOR CONSTRUCTION BY THE CITY OF COLLEGE PLACE SHALL MEET OR EXCEED 4000 PSI.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN AND CONTROL DUST ON-SITE AS A CONDITION FOR CONTINUING PROJECT APPROVAL.
- THE CONTRACTOR SHALL OBSERVE THE CURRENT CITY NOISE ORDINANCE (1 P.M. - 7 A.M.)

STD 01000.11001006

GENERAL STREET CONSTRUCTION NOTES

STANDARD PLAN 110.00

- STREET BASE ROCK LIFTS SHALL BE IMPORTED CRUSHED ROCK, COMPACTED TO A 95% RELATIVE DENSITY WITH A VIBRATING COMPACTION SLED, UPRIGHT HAMMERMING COMPACTOR, HOEPACK, OR VIBRATORY COMPACTION ROLLER.
- NATIVE EXCAVATED MATERIAL SHALL NOT BE USED FOR BACKFILL.***
- STREET BASE ROCK LIFTS SHALL BE NO MORE THAN 12" IN HEIGHT IN ORDER TO ACHIEVE PROPER DENSITY. PROPERLY MEASURED LIFTS SHALL BE ADDED TO THE ROCK FOR OPTIMIZING COMPACTION. ROCKS IS NOT TO BE COMPACTED OR GRADDED BY.
- THE LAST OR TOP LIFT, PRIOR TO PAVING THE CURB, MAY EITHER BE COMPACTED CRUSHED ROCK OR A CONTROLLED DENSITY CONCRETE FILL, CONTROLLED DENSITY CONCRETE FILL SHALL BE APPROVED BY THE CITY ENGINEER PRIOR TO USE.
- FINAL TOP COURSE ON CONCRETE PAVED STREETS SHALL BE NO LESS THAN 6" IN DEPTH.
- A COAT OF CSS-1 TACK SHALL BE APPLIED TO THE ADJOINING EDGES OF ALL ASPHALT STREET CUTS. THE ONLY EXCEPTION TO THIS IS WHERE CONCRETE IS BEING USED AS THE RESURFACING MATERIAL.
- ASPHALT FINAL TOP COURSE LIFTS SHALL BE CONSTRUCTED OF CLASS A PG 64-38 HMA OR EQUIVALENT SUPERPAVE SPECIFICATION, NO LESS THAN 3" THICK AND SHALL SLOPE FROM CENTERLINE TO THE EDGE OF THE STREET AT A 2% SLOPE. THE ONLY EXCEPTION IN PAVEMENT THICKNESS IS SURFACE REPAIR LAYERS FOR LOW GRADE FLEXIBLE PAVEMENT WHICH ONLY REQUIRES A MINIMUM 2" LIFT. (SEE STANDARD PLAN 110.10)
- THE ROADWAY TESTS SHALL BE PROVIDED AT THE OWNER'S EXPENSE AND SHALL MEET OR EXCEED THE FOLLOWING SPECIFICATIONS PRIOR TO ROADWAY CONSTRUCTION:
 - CURRENT WSOT WITH CERTIFICATION
 - 1-0667-311 (SIDE GRADE MAX. DENSITY) NOTE: PROVIDE ADDITIONAL TEST FOR SUBGRADE EXCAVATIONS ? OR MORE BELOW EXISTING GRADE.
 - 1-066 (CS1C SIEVE ANALYSIS)
 - 1-2171 (CS1C SIEVE ANALYSIS (SE))
 - 1-466 (CS9C MAX. DENSITY)
 - 1-2711 (CS9C SIEVE ANALYSIS)
 - 1-176 (CS9C SAND EQUIVALENT (SE))
 - 1-0667 ASPHALT MIX DESIGN (SE)
 - 1-0667 ASPHALT MIX DESIGN (SE)
 - THE FOLLOWING HMA PLANT PRODUCTION TESTS SHALL BE PROVIDED AT THE OWNER'S EXPENSE AND SHALL MEET WSOT SPECIFICATIONS PRIOR TO HMA APPROVAL AND PAVING:
 - ASPHALT CONTENT

STD 01000.11101006

- GRADATION
- SAND EQUIVALENT
- WSOT DEGRADATION
- LA WEAR TEST

- THE FOLLOWING TESTS SHALL BE PERFORMED AT THE OWNER'S EXPENSE TO WSOT SPECIFICATIONS FOR CITY REVIEW AND APPROVAL DURING CONSTRUCTION:
 - DENSITY TESTS: PER MINIMUM PER FIRST 1000 FEET WITH ONE TEST PER 200' OR FRACTION THEREOF THEREAFTER FOR
 - STANDARD BEST PRACTICE (SBP) DENSITY SHALL BE 95% OF THE DENSITY DETERMINED BY THE APPROVED WSOT TEST METHOD.
 - SUBGRADE AT CRUDED - SAME AS ABOVE.
 - CS9C - TESTS REQUIRED PER 12 INCHES OR FRACTION THEREOF. MINIMUM DENSITY SHALL BE 95% BASED ON THE WSOT 666 TEST METHOD.
 - CS1C - TESTS REQUIRED PER 6" OR FRACTION THEREOF. MINIMUM DENSITY SHALL BE 95% BASED ON THE WSOT 666 TEST METHOD.
 - FIVE ASPHALT DENSITIES PER 400 TON OF ASPHALT.
 - CONCRETE SHALL BE DETERMINED BY THE CITY AND WILL GENERALLY CONFORM TO WSOT TEST METHOD 1116.
- THE FOLLOWING TESTS AND INFORMATION SHALL BE PROVIDED FOR CITY REVIEW AND APPROVAL PRIOR TO PLACEMENT OF CONCRETE:
 - BATCH PLANT PRE-CERTIFICATION (IRBMAC)
 - MIX DESIGN
 - AIR CONTENT (4.5% - 7.5%)
 - CYLINDERS - SEE WSOT REQUIREMENTS.
- ALL UTILITIES SHALL BE RAISED PRIOR TO PLACEMENT OF FINAL LIFT OF HMA. ANY GAPS AROUND UTILITIES SHALL BE FILLED WITH CONCRETE TO TOP OF BASE LIFT/GRADE PRIOR TO PAVING FINAL LIFT.
- CURB RAMP TRANSITIONS SECTIONS SHALL BE NO STEEPER THAN A 12:1 SLOPE AS PER THE AMERICANS WITH DISABILITIES ACT (A.D.A.)
- CURB RAMP SHALL BE PLACED TO FACILITATE ALIGNMENT OF THE CROSSWALKS.
- CURB RAMP SHALL NOT BE PLACED INTEGRAL WITH THE SIDEWALK OR CURB AND SHALL BE ISOLATED WITH EXPANSION JOINT MATERIAL.
- SIDEWALK WIDTH SHALL BE NO LESS THAN 5'-0" WIDER SIDEWALKS SHALL BE SPECIFIED ON PLANS & DOCUMENTS AND ARE SUBJECT TO APPROVAL BY THE CITY ENGINEER. SIDEWALKS SHALL BE CONSTRUCTED TO THE FINISH SURFACE OF THE SIDEWALK AND SHALL BE GRADUALLY LOWERED SO THE 12:1 RAMP SLOPE CAN BE ACHIEVED OVER THE FULL WIDTH OF THE RAMP.
- YELLOW TRUNCATED DOME WARNING PADS SHALL BE PLACED ON BOTH SIDES OF CURB RAMPS AT ENTRIES TO TRAVELLEDWAYS AND AT ANY GRADE CHANGE OR OBSTRUCTION IN THE SIDEWALK. THEY SHALL BE CONSTRUCTED AS PER SHOWN IN STANDARD PLAN 110.10. THE SIDEWALK AND SIDEWALK AND SHALL BE NO LESS THAN 1'-0" OR NO MORE THAN 3'-0" WIDE AS SHOWN IN STANDARD PLANS 110.20 - 110.36.

STD 01000.12101006

SANITARY & STORM SEWER NOTES

STANDARD PLAN 310.00

- ALL MANHOLES AND CURB INLETS SHALL BE PRE-CAST CONCRETE UNITS UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
- MANHOLE PIPE CONNECTORS SHALL BE CAPABLE OF A 10" DEFLECTION IN ANY ONE DIRECTION AND SHALL BE INSTALLED AS REQUIRED BY THE MANUFACTURER. SANITARY MANHOLES (AND STORM SEWER MANHOLES WITH PVC PIPE CONNECTIONS) SHALL USE THE A-10K PIPE CONNECTOR, MANUFACTURED BY A-10K PRODUCTS OR FSN. MANUFACTURED BY PRESS-SEAL GASKETS CORP. OR APPROVED EQUAL. ALL OTHER CONNECTION SYSTEMS MUST BE APPROVED BY THE CITY ENGINEER PRIOR TO CONSTRUCTION. MANHOLES WITH HIDE THE CONNECTIONS MUST BE GROUDED OR GROUNDING (NOT REQUIRED).
- ANY GAPS, HOLES, ROUGH SPOTS, ETC., IN THE CHANNELS, AT PIPE CONNECTIONS, AND JOINTS, SHALL BE FILLED OR REPAIRED IN THE FIELD.
- MANHOLES SHALL BE SET A MINIMUM OF 8 INCHES AND NOT MORE THAN 12" BELOW FINISH GRADE AND THEN ADJUSTED TO GRADE WITH RISER RINGS AS REQUIRED.
- MANHOLE CONE SECTION SHALL BE ECCENTRIC.
- IN MANUFACTURING THE MANHOLES, THE CONTRACTOR IS ADVISED TO REVIEW THE DETAILS AS OUTLINED IN ANY TECHNICAL SPECIFICATIONS AND/OR PLANS, WHICH SHOW THE SEWER PIPE SLOPE CALCULATED TO THE CENTERLINE OF THE MANHOLE.
- MASTIC JOINT SEAL SHALL BE PLACED AT EVERY JOINT BETWEEN BARREL SECTIONS, RISER SECTIONS, AND THE CAST IRON TOP.
- MANHOLE RING & COVER SHALL BE INLAND FOUNDRY COMPANY INC. #17 WITH A SOLID COVER LABELED "SEWER" OR APPROVED EQUAL.
- CAST IRON MANHOLE RING AND COVER USED WITH THE SHALLOW TYPE MANHOLE DISPLAYED IN STANDARD PLANS SHALL BE INLAND FOUNDRY COMPANY INC. #21 AN APPROVED EQUAL.
- WHEN USING THE SHALLOW TYPE MANHOLE REFERRED TO IN STANDARD PLAN 310.10, A MINIMUM SEPARATION BETWEEN THE FLAT TOP AND THE INSIDE BOTTOM SURFACE SHALL BE NO LESS THAN 2'-0". IN THE EVENT THE MINIMUM SEPARATION CANNOT BE MAINTAINED, THE SHALLOW TYPE MANHOLE REFERRED TO IN STANDARD PLAN 310.03 SHALL BE USED.
- PRE-CAST MANHOLE BASE SHALL BE NO LESS THAN 24" IN HEIGHT. A THICKNESS OF 6" SHALL BE MAINTAINED BETWEEN THE FLOW CHANNEL AND BASE ROCK.
- SANITARY BASE SECTIONS SHALL BE PRE-CAST, CUSTOM UNITS FITTED WITH "A-10K" FSN GASKETS (OR APPROVED EQUAL) AROUND ALL ATTACHED PIPE SECTIONS, WHERE A "KNOCK OUT" VS. A "PRE-CAST" HOLE MUST BE PLACED, A SAND COLLAR OR AN APPROVED EQUAL.

STD 01000.01301006

- APPROVED EQUAL SHALL BE USED FOR PIPE CONNECTION. THE SAND COLLAR SHALL BE PROPERLY SEALED INSIDE AND OUTSIDE WITH NON-SHRINK, QUICK SET GROUT.
- BARREL SECTIONS SHALL BE NO LESS THAN 12" IN HEIGHT. BARREL SECTIONS FOR THE 30:03 SHALLOW TYPE MANHOLE SHALL BE NO LESS THAN 12" AND NO MORE THAN 30" IN HEIGHT. IF GRADE REQUIRES MORE THAN A 30" BARREL HEIGHT, AN ECCENTRIC CONE SECTION SHALL BE USED. THE BARREL SECTION FOR THE 30:03 SHALLOW TYPE MANHOLE SHALL BE NO LESS THAN 24" AND NO MORE THAN 30" IN HEIGHT. IF GRADE REQUIRES MORE THAN A 30" BARREL HEIGHT, AN ECCENTRIC CONE SECTION SHALL BE USED.
- RISER RINGS VARY IN HEIGHT FROM 1" TO 6". ANY NEED FOR ADJUSTMENT COVER 12" AT APPROVED BY THE CITY ENGINEER. A MINIMUM 7" OF RISER SHALL BE USED ON ALL MANHOLES. USE THE LEAST NUMBER OF RISER RINGS TO ACHIEVE THE REQUIRED HEIGHT. RISER RINGS SHALL BE SET TO THE FINISH GRADE OF THE SURFACE TO WHICH THEY ARE TO BE ADJUSTED. RISER RINGS ALL RISERS SHALL HAVE DOWEL OR MASTIC SEALER APPLIED TO BOTH THE TOP AND BOTTOM SURFACES. RISER STACKS SHALL BE WATER TIGHT.
- MANHOLE STEPS SHALL BE LANE BRAND, POLYPROPYLENE MANHOLE STEPS MODEL NO. P-1398E OR AN APPROVED EQUAL.
- ALL SANITARY AND STORMWATER SEWER PIPE SHALL BE FULLY BENDED WITH A MINIMUM OF 4IN UNDER THE PIPE AND A MINIMUM OF 6IN OVER ANY PIPE. BEDDING MATERIALS SHALL BE CRUSHED ROCK AS PER THE STANDARD SPECIFICATION. THE CITY ENGINEER SHALL APPROVE ALL OTHER BEDDING MATERIALS PRIOR TO USE.
- PRE-CAST MANHOLE BASES SHALL BE SET LEVEL ON A MINIMUM OF 6-IN. OF WELL-COMPACTED CRUSHED AGGREGATE. SANITARY AND STORMWATER SEWER PIPE AND MANHOLES SUBJECT TO GOVERNMENT SHALL BE PLACED ON 4IN. OF CRUSHED BEDDING. SANITARY AND STORMWATER SEWER PIPE SHALL BE PLACED ON 6IN. OF CRUSHED BEDDING AS PER STANDARD SPECIFICATION 954177 AND CITY STANDARD PLAN 310. SECTIONS 16 & 17.
- THE BEDDING UNDER SANITARY AND STORMWATER SEWER PIPE AND MANHOLES SHALL BE COMPACTED PRIOR TO PIPE AND MANHOLE PLACEMENT TO PROVIDE UNIFORM SUPPORT ALONG THE ENTIRE LENGTH OF THE PIPE AND UNDER MANHOLES. ONLY PRE-BEDDING MATERIAL SHALL BE IN CONTACT WITH SANITARY AND STORMWATER SEWER PIPE. MANHOLES SHALL BE SET TO THE FINISH GRADE OF THE SURFACE TO WHICH THEY ARE TO BE ADJUSTED. CONCRETE CHURNS OR SIMILAR MATERIALS SHALL BE REMOVED.
- ELEVATIONS AND DISTANCES BETWEEN ELEVATIONS SHALL BE PROVIDED TO THE CITY BY A REGISTERED SURVEYOR OR PROFESSIONAL ENGINEER AFTER BEDDING PIPE ON COMPACT BEDDING, PRIOR TO BACKFILL. AT A MINIMUM OF EVERY 100' AND AT MANHOLE TERMINATIONS, SEWER AND STORM PIPE GRADE SHALL CORRESPOND TO APPROVED PLANS AND IN NO CASE SHALL BE LESS THAN 0.4% WITHIN 10' BELIEFS OR MORE.
- NATIVE FILL MAY BE USED FOR BACKFILL UNLESS DEEMED UNSUITABLE BY THE ENGINEER. COMPACT TO 95% MODIFIED PROCTOR DENSITY BEFORE PROCEEDING TO PLACEMENT OF BASE ROCK AND PAVING. LABORATORY TESTING SHALL BE PERFORMED TO DETERMINE MAXIMUM MODIFIED PROCTOR DENSITY FOR NATIVE FILL. IMPORT FILL REQUIRES SUPPLIER PROCTOR TEST RESULTS. IF NATIVE FILL IS UNSUITABLE AS DETERMINED BY THE CITY ENGINEER, BANK RUN GRAVEL/THE

STD 01000.01301006

CITY OF COLLEGE PLACE

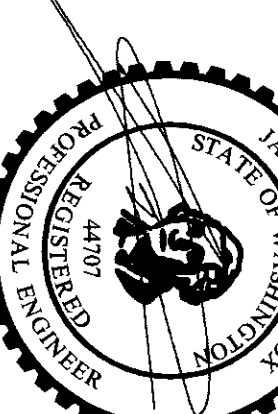
Approved by City of College Place _____

Date _____

Utility Locate

Call 811

2 Business Days Before Digging



RECORD DRAWING

GENERAL NOTES FOR: **GARRISON VILLAGE XI** A SUBDIVISION LOCATED IN THE CITY OF COLLEGE PLACE, WASHINGTON

DESIGNED: JLM
DRAWN BY: CAD
CHECKED: JLM

SCALE: H: 1/4" = 1'-0"
V: 1/4" = 1'-0"

JULY 2016 3945

SHEET 2 OF 15

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Internet: www.hdjdg.com

HDJ
DESIGN GROUP
engineers | landscape architects | planners | surveyors

STORMWATER FACILITY NOTES

STANDARD PLAN 410.00

21. MANHOLE BARREL SECTIONS AND RISER SECTIONS SHALL BE SEALED WATER-TIGHT WITH MASSIC. IN ADDITION, ALL SANITARY MANHOLES SUBJECT TO GROUNDWATER SHALL BE SEALED WITH CITY-APPROVED SEALANT ON THE EXTERIOR FROM THE BASE TO 3' ABOVE THE SEASONAL HIGH GROUNDWATER LEVEL, AND SHALL BE VACUUM TESTED PER ASTM C-1244 WHEN SEASONAL HIGH GROUNDWATER IS OVER 3' HIGH FROM THE BASE.
22. ALL SANITARY SEWER PIPE SHALL BE TESTED BY APPLICATION OF AN AIR PRESSURE TEST IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS (7-44-30) E OR F AS APPLICABLE. CLEANING AND REMOVAL OF ANY ROCK IN THE PIPE AND MANHOLES IS REQUIRED. AFTER CLEANING, THE CITY SHALL BE NOTIFIED FOR TV INSPECTION OF ALL LINES 6-IN. AND LARGER. ANY WORK FALLING AIR TEST AND OR TV INSPECTION MUST BE REPAIRED AND RE-TESTED FOR CITY APPROVAL. THE CITY ENGINEER OR HIS DESIGNEE MUST WITNESS, VERIFY, AND RECORD ALL TESTS.
23. LATERAL SIDE SEWER SERVICES MUST BE MARKED WITH A NO. 12 SOLID COPPER LOCATOR WIRE AND THE ENDS, MARKED WITH A BURIED STEEL FENCE POST EXTENDED ABOVE THE GROUND AT LEAST 6-IN. IN URBAN AREAS AND 4 FT. IN RURAL AREAS. THE LOCATOR WIRE SHALL BE TIED AROUND THE MAIN LINE AND EXTENDED ALONG THE SIDE SEWER AND UP THE MARKER POST.
24. SEWER SERVICE LATERALS SHALL BE LAID BETWEEN MINIMUM AND MAXIMUM GRADES AS DETERMINED BY THE BUILDING OFFICIAL.
25. THE CITY ENGINEER MAY REQUIRE THE APPLICATION OF AN AIR PRESSURE TEST ON ANY STORM SEWER PIPES PER STANDARD SPECIFICATIONS (7-44-30) E OR F AS APPLICABLE. CLEANING AND REMOVAL OF ANY ROCK IS REQUIRED. AFTER CLEANING, THE CITY SHALL BE NOTIFIED FOR TV INSPECTION OF ALL STORM SEWER LINES. ANY WORK FALLING AN AIR TEST AND OR TV INSPECTION MUST BE REPAIRED AND RE-TESTED FOR CITY APPROVAL. THE CITY ENGINEER OR HIS DESIGNEE MUST WITNESS, VERIFY, AND RECORD ALL TESTS.
26. MINIMUM DIAMETER OF STORMWATER PIPES SHALL BE 8" LARGER SIZES MAY BE REQUIRED.
27. PRE-CAST CURB INLET BOX (CATCH BASIN) SHALL BE NO LESS THAN 48" IN HEIGHT. A THICKNESS OF 6" SHALL BE MAINTAINED BETWEEN THE INSIDE BASE AND BASE ROCK. REINFORCEMENT CAGE AND RING OUT SECTIONS NO LESS THAN 2" THICK ON ALL FOUR VERTICAL SIDES AS INDICATED IN STANDARD PLAN 31.02. INSTALLATION SHALL BE PER STANDARD PLAN 31.05.
28. CURB INLET BOXES (CATCHBASINS) WITH PVC LINE CONNECTIONS SHALL USE SAND COLLARS WITH GROUT SEAL (CALOR) ALSO ACCEPTABLE. SIMILAR TRANSITIONS MAY BE USED WITH CITY ENGINEER APPROVAL. HOPE TYPE CONNECTIONS TO CURB INLET BOXES MAY BE GROUTED (SAND COLLARS NOT REQUIRED).
29. THE CAST IRON CURB INLET GRATE SHALL BE UN-DIRECTIONAL OR BI-DIRECTIONAL GRATES ONLY. INLAND FOUNDRY COMPANY #571-3 OR #571-5 OR AN APPROVED EQUAL.

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WATER UTILITY SYSTEM NOTES

STANDARD PLAN 210.00

1. THE CONTRACTOR SHALL PREVENT DISCHARGE OF CONSTRUCTION STORMWATER AND SEDIMENTATION FROM LEAVING THE SITE USING BEST MANAGEMENT PRACTICES TO INCLUDE ONE OR MORE OF THE FOLLOWING AS NECESSARY:
 - A. PRESERVE VEGETATION, AND MARK CLEARING LIMITS. PROTECT NATURAL VEGETATION AND TREES. USE VEGETATED BARRIERS BEFORE GRADING, MARK CLEARING LIMITS AND SENSITIVE AREAS FOR PROTECTION.
 - B. ESTABLISH CONSTRUCTION ACCESS REDUCE VEHICLE ACCESS POINTS AND STABILIZE ENTRANCE WITH CRUSHED ROCK OR SIMILAR MATERIAL. MINIMIZE MUD AND DIRT TRACKED ONTO PAVED ROADS, CLEAN ROAD SURFACES ON A REGULAR BASIS, SHOVEL AND SWEEP MUD OFF ROADWAY.
 - C. CONTROL FLOW RATES, PROTECT PROPERTIES, AND WATERWAYS DOWNSTREAM FROM THE SITE FROM IMPACTS OF STORMWATER RUNOFF. REDUCING FLOW AND PREVENTING EROSION ARE TWO WAYS TO DO THIS.
 - D. INSTALL SEDIMENT CONTROLS. PASS STORMWATER THROUGH A SEDIMENT POND, SEDIMENT TRAP, FILTER OR OTHER EQUIVALENT MEASURE BEFORE IT LEAVES THE SITE OR ENTERS PUBLIC AREAS. SENSITIVE AREAS, SUCH AS NEARBY WATER BODIES, SEDIMENT BARRIERS AND SILT FENCES AS FIRST STEP IN GRADING.
 - E. STABILIZE SOILS. SOIL STABILIZATION INCLUDES TEMPORARY AND PERMANENT STABILIZATION.
 - F. PROTECT SLOPES. DIVERT RUNOFF AROUND SLOPES AND DISTURBED AREAS WITH EROSION CONTROL MATS, STRIP CURBS, SLOPE PROTECTION, TERRACING, STEPPERS, AND REDUCING STEEPNESS.
 - G. PROTECT DRAIN INLETS. PROTECT ALL OPERABLE STORM DRAIN INLETS FROM SEDIMENT, CLEAN AND REMOVE SEDIMENT FROM INLET PROTECTION DEVICES WHEN THEY FILL TO 1/3 OF THEIR CAPACITY.
 - H. STABILIZE CHANNELS AND OUTFLEETS STABILIZE DRAIN OUTFLEETS ADJACENT STREAM BANKS, SLOPES AND CHANNELS WITH ARBORING SUCH AS ROCKS OR GRAVEL.
 - I. CONTROL POLLUTANTS. PREVENT CHEMICALS AND OTHER POLLUTANTS FROM CONTACT WITH STORMWATER. HANDLE AND DISPOSE OF POLLUTANTS PROPERLY. TYPICAL POLLUTANTS INCLUDE: WASTE MATERIALS, CHEMICALS, LIQUID PRODUCTS, PETROLEUM PRODUCTS, OIL, DEMOLITION DEBRIS, AND MATERIALS PREVENT OR TREAT CONTAMINATION OF STORMWATER RUNOFF BY ALKALINE DURING CONSTRUCTION.
 - J. THE ENGINEER (OR HIS AGENT) CERTIFYING STORMWATER FACILITIES SHALL BE PROVIDED ACCESS TO STORMWATER FACILITIES FOR OBSERVATION AT ANY TIME DURING CONSTRUCTION.
 - K. INFILTRATION FACILITIES SHALL BE CONSTRUCTED WITHOUT ALLOWING HEAVY EQUIPMENT TO TRACK ON INFILTRATION SURFACE AND CONSTRUCTION SHALL BE STOPPED IMMEDIATELY IF INFILTRATION SURFACE IS FOUND TO BE SCARIFIED TO A DEPTH OF 1" TO AVOID COMPACTED SOIL OF THE INFILTRATION SURFACE.
 - L. THE CONTRACTOR SHALL COMPLY WITH THE NPDES CCR (NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL CONSTRUCTION PERMIT). THIS INCLUDES DISCHARGE MANAGEMENT PRACTICES TO PREVENT DISCHARGE OF STORM WATER AND SEDIMENT FROM THE SITE DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND MAINTAINING ALL NECESSARY PERMITS AND UPGRADING OF THESE BMP'S ARE THE RESPONSIBILITY OF THE CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED.
 - M. ALL NEW DRYWELLS SHALL BE REGISTERED USING CITY-PROVIDED IDENTIFICATION NUMBER/LABEL WITH THE UNDERGROUND INFLECTION CONTROL PROGRAM AT DEPARTMENT OF ECOLOGY PRIOR TO USE (IUC PROGRAM, DEPARTMENT OF ECOLOGY, P.O. BOX 41980, OLYMPIA, WA 98541-9806).
 - N. THE CITY ENGINEER OR HIS DESIGNEE MAY IMPOSE OTHER DESIGN AND CONSTRUCTION CONSIDERATIONS, AS CIRCUMSTANCES REQUIRE.

Revised February 2013

STD 21000_012915.doc

Revised February 2013

1. ALL VALVE OPERATIONS AND OTHER ACTIVITIES IMPACTING THE WATER DISTRIBUTION SYSTEM SHALL BE PERFORMED BY THE CITY OF COLLEGE PLACE PUBLIC WORKS. 24-HOUR NOTIFICATION OF ANY INTERRUPTION IN WATER SERVICE IS REQUIRED TO ALL AFFECTED CUSTOMERS.
2. DISINFECTION OF WATER LINES SHALL COMPLY WITH AWWA C651 - DISINFECTING WATER MAINS, SERRAFC. PRESSURE TESTING, FLUSHING, BACTERIAL SAMPLING AND SAMPING SHALL TAKE PLACE AFTER ALL UNDERGROUND UTILITIES ARE INSTALLED AND COMPLETION OF THE ROADWAY SECTION IS COMPLETE. SPECIAL INSPECTION AND CERTIFICATION OF ADEQUACY BY A PROFESSIONAL ENGINEER IS REQUIRED. ALL NEW FITTINGS AND EXISTING FITTINGS EXPOSED DURING INSTALLATION SHALL BE SWABBED WITH CHLORINE AND THE LINE CHLORINATED. ONCE THE LINE IS CHLORINATED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE LINE FOR 24 HOURS. THE LINE SHALL THEN BE THOROUGHLY FLUSHED AND WATER SAMPLES TAKEN BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE FOR APPROVAL BY THE LOCAL HEALTH AGENCY. WATER SHALL NOT BE FLUSHED TO NATURAL WATERS OR WATERWAYS. SHOULD THE INITIAL TREATMENT RESULT IN AN UNSATISFACTORY BACTERIOLOGICAL TEST, THE ORIGINAL CHLORINATION PROCEDURE SHALL BE REPEATED BY THE CONTRACTOR UNTIL SATISFACTORY RESULTS ARE OBTAINED.
3. NEW WATER LINE INSTALLATIONS SHALL BE PRESSURE TESTED AND MEET MINIMUM LEAKAGE STANDARDS IN CONFORMANCE WITH SRR&MC.
4. 12" AND SMALLER LINES SHALL BE AWWA C151 CLASS 50 DUCTILE IRON WITH CLASS C154 CEMENT MORTAR LINING WITH ALL JOINTS MECHANICALLY RESTRAINED. PIPE JOINTS SHALL BE RESTRAINED USING TR-FLEX OR FLEX RING DUCTILE IRON PIPE OR BY USING FIELD-ON OR FAST GRIP GASKETS. THE GASKET USED SHALL BE APPROVED BY THE CITY ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE RESTRAINTS FOR THE LIFE OF THE WATER MAINS AND SERVICE LINES LARGER THAN 12" SHALL BE TR FLEX OR FLEX-RING DUCTILE IRON PIPE CLASS 52.
5. WATER MAINS AND SERVICE LINES SHALL BE INSTALLED AT A MINIMUM DEPTH OF 30" TO OUTSIDE CROWN OF PIPE.
6. ALL FIRE HYDRANTS SHALL BE DRY BARREL, THREE PORT TYPE, AND MEET ALL SPECIFICATIONS OUTLINED IN ARTICLE 200.02 OF THE CITY STANDARD SPECIFICATIONS.
7. CLEAN, WASHED 1 1/2" DRAIN ROCK SHALL BE PLACED AROUND THE BASE OF ALL FIRE HYDRANTS AND BLOWOFF ASSEMBLIES AND SHALL BE COVERED WITH FILTER FABRIC. AN 8X3X4 INCH PRE-CAST 3000 PSI CONCRETE BLOCK SHALL BE PLACED BENEATH THE BASE OF ALL FIRE HYDRANTS. THIS IS TO ALLOW THE 1 1/2" DRAIN ROCK TO BE PROTECTED FROM THE BLOWOFF AND THE BASE OF THE HYDRANT TO FACILITATE PROPER DRAINAGE.
8. ALL FIRE HYDRANTS AND SERVICE LINES SHALL BE INSTALLED AT A MINIMUM DEPTH OF 30" TO OUTSIDE CROWN OF PIPE.
9. 3000 PSI CONCRETE THURST BLOCKS SHALL BE USED TO RESTRAIN FIRE HYDRANTS AND CONTROL VALVES. THURST BLOCKS SHALL BE PLACED AGAINST UNDISTURBED SOIL. SEE STANDARD PLAN 210.02, 210.09, 210.10, 210.11.
10. A SHEET OF 6 MIL. POLY SHEETING SHALL BE PLACED BETWEEN THE BASE OF ALL FIRE HYDRANTS, VALVES, PIPE FITTINGS AND INSTALLED THURST BLOCKS. SEE STANDARD PLAN 210.02.
11. A STORTZ COUPLER SHALL BE MOUNTED TO THE 4 1/2" PORT ON ALL NEW FIRE HYDRANTS. EXISTING FIRE HYDRANTS WILL BE RETROFIT WITH A THREADED STORTZ ADAPTER.
12. ALL GATE VALVES SHALL BE MIRELLER A250 RESILIENT WEDGE GATE VALVES WITH A 2" SQUARE WRENCH NUT OR AN APPROVED EQUAL.
13. ALL GATE VALVE RISER PIPE SHALL BE 8" SDR-35 (UN-USED SEWER PIPE).
14. ALL WATER MAINS SHALL BE A MINIMUM CLASS 50 DUCTILE IRON PIPE WITH A MINIMUM DIAMETER OF 8".
15. CORROSIONATION STOPS SHALL BE MALE IRON PIPE THREAD (MIP) X COPPER TUBE SIZE (CTS) COMPRESSION FITTINGS.
16. SINGLE STRAP SADDLES SHALL BE ROMAC 1015. DOUBLE STRAP SADDLES SHALL BE ROMAC 2025 OR APPROVED EQUAL.
17. SERVICE LINES SHALL BE NO LESS THAN 1" DIAMETER TYPE K COPPER TUBE OR CTS POLYETHYLENE PIPE. SERVICE LINES LARGER THEN 1" SHALL BE CONSTRUCTED WITH CTS POLYETHYLENE. USE OF POLYETHYLENE PIPE SHALL REQUIRE INSPECTION AT THE TIME ALL COMPRESSION FITTINGS ARE INSTALLED. A STAINLESS STEEL INSERT WILL BE PLACED AT ALL COMPRESSION JOINTS. FAILURE TO OBTAIN AN INSPECTION WILL RESULT IN REMOVAL OF ALL OR A PORTION OF THE WORK IN ORDER TO FACILITATE A PROPER INSPECTION.
18. WATER METERS SHALL BE METRON FARMERS SPECTRUM SERIES INNOV 8 RADIO REGISTER METERS REGISTERING IN 1000 GALLONS. MINIMUM SIZE SHALL BE FULL 1/2" SHORT BODY FOR RESIDENTIAL WATER SERVICES.
19. A MINIMUM DEPTH OF 16" SHALL BE MAINTAINED BETWEEN THE TOP OF THE METER SETTER AND FINISHED GRADE.
20. BLOWOFF ENCLOSURE SHALL BE MID-STAYS 134 METERS BOX WITH A CAST IRON I.D.
21. THE MAIN GATE VALVE FOR THE BLOWOFF ASSEMBLY SHALL BE A MIRELLER 2" A-2360 #10A14 WITH A 2" SQUARE WRENCH NUT OR AN APPROVED EQUAL. SEE STANDARD PLAN 210.08.
22. TOTAL DEPTH OF METER BOX BURY SHALL BE 30" MINIMUM. ALL METER BOXES USED SHALL BE CONSTRUCTED OF PLASTIC. THE BOX SHALL CONSIST OF 12" DEPTH METER BOXES AND 18" DEPTH METER BOXES. ALL METER BOXES SHALL BE MID-STAYS 134 OR APPROVED EQUAL FOR 1" OR SMALLER METERS.

STD 21000_012915.doc

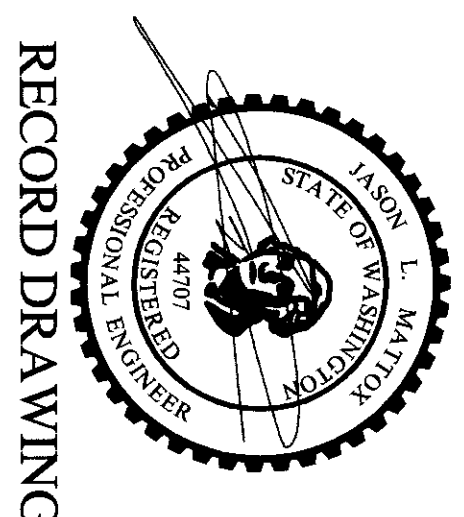
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STD 21000_012915.doc

CITY OF COLLEGE PLACE
Approved by City of College Place _____ Date _____

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RECORD DRAWING

GENERAL NOTES FOR:

GARRISON VILLAGE XI



6115 Burden Blvd., Suite E
Pasco, WA 99301-8930
509/547-5719
306/695-3488
509/547-5129 fax
Internet: www.hjdgroup.com

DESIGNED: JLM
DRAWN BY: CAD
CHECKED: JLM

SCALE: H: N/A
V: N/A
JULY 2016
3845

3 SHEET
15

Existing Linetype Legend	Proposed/Future Linetype Legend
Existing 4" Sanitary Sewer Pipe	Proposed Sanitary Sewer Pipe
Existing 6" Sanitary Sewer Pipe	Proposed Sanitary Lateral
Existing 8" Sanitary Sewer Pipe	Proposed Sanitary Force Main
Existing 10" Sanitary Sewer Pipe	Proposed Storm Under Drain
Existing 12" Sanitary Sewer Pipe	Proposed Storm Rain Drain
Existing 15" Sanitary Sewer Pipe	Proposed Storm Pipe
Existing 18" Sanitary Sewer Pipe	Proposed Storm Lateral
Existing 24" Sanitary Sewer Pipe	Proposed Water Lateral
Existing 30" Sanitary Sewer Pipe	Proposed Water Pipe
Existing Sanitary Force Main	Proposed Electrical Routing
Existing Storm Sewer Pipe	Proposed Lot Line
Existing 4" Storm Sewer Pipe	Proposed Flow Line
Existing 6" Storm Sewer Pipe	Proposed Centerline
Existing 8" Storm Sewer Pipe	Proposed Right-of-Way
Existing 10" Storm Sewer Pipe	Proposed Sawcut Line
Existing 12" Storm Sewer Pipe	Proposed Flow Line
Existing 15" Storm Sewer Pipe	Proposed Easement
Existing 18" Storm Sewer Pipe	Proposed Curb & Gutter
Existing 24" Storm Sewer Pipe	Proposed End Of Pavt
Existing Water Pipe	Proposed Sidewalk
Existing 4" Water Pipe	Proposed Wall
Existing 6" Water Pipe	Proposed Building
Existing 8" Water Pipe	Proposed Setback
Existing 10" Water Pipe	Proposed Property Line
Existing 12" Water Pipe	Proposed Road
Existing 15" Water Pipe	Proposed Cut Line
Existing 18" Water Pipe	Proposed Score Line
Existing 24" Water Pipe	Proposed Paint Stripe
Existing Water Lateral	Proposed Wetland Buffer
Existing Irrigation Pipe	Proposed Wetland Perimeter
Existing 4" Irrigation Pipe	Proposed Contour
Existing 6" Irrigation Pipe	Erosion Control Filter Fabric Fence
Existing 8" Irrigation Pipe	Future Storm Pipe
Existing 10" Irrigation Pipe	Future Sanitary Lateral
Existing 12" Irrigation Pipe	Future Water Pipe
Existing Irrigation Lateral	Future Easement
Existing Cable TV Line	Future Sidewalk
Existing Gas Line	Future Centerline
Existing Over Head Power Line	Future Right-of-Way
Existing Telephone Line	Future Contour
Existing Fiber Optic Line	Future Lot Line
Existing Underground Utility Line	Future Paint Stripe
Existing Centerline	
Existing Curb	
Existing Lot Line	
Existing Gravel Road	
Existing Flow Line	
Existing Paint Stripe	
Existing Right-of-Way	
Existing Fence	
Existing Wetland Perimeter	
Existing Wetland Buffer	
Existing Property Line	
Existing Utility Easement	
Existing Quarter Section	
Existing Railroad	
Existing Fence	
Existing Wall	
Existing Lot Line	
Existing Contour	

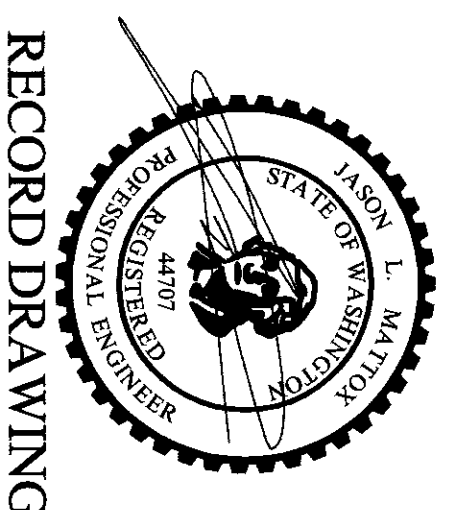
Symbol Legend	Symbol Legend
Existing Water Valve	Proposed Irrigation Meter
Existing Gas Valve	Proposed Irrigation Backflow Device
Existing Fire Hydrant	Proposed Irrigation Valve
Existing Power Pole	Proposed Irrigation Band Tee W/Valve
Existing Water Meter	Proposed Irrigation Bend Tee
Existing Electrical Pedestal	Proposed Water 22 1/2" Bend
Existing Project Bench Mark	Proposed Water 11 1/2" Bend
Existing Iron Rod	Proposed Irrigation 45° Bend
Existing Sanitary Manhole	Proposed Irrigation 90° Bend
Existing Storm Manhole	Proposed Irrigation Stand Pipe
Existing Catch Basin	Proposed Irrigation Temporary Blowoff
Existing Area Drain	Proposed Irrigation Standard Blowoff
Existing Combo Inlet	Proposed Irrigation Thrust Block
Existing Telephone Pad	Proposed Inlet Protection Pillow
Existing Cleanout	Proposed Gravel Construction Entrance
Existing Flow Arrow	Proposed Sedimentation Trap
Proposed Boilard	Erosion Control feature code & ID number (Pugel Sound)
Proposed Street Light	BMP Type (Pugel Sound)
Proposed 5-Box	Future Storm Manhole
Proposed Road Barrier	Future Sanitary Manhole
Proposed Road Sign	Future Fire Hydrant
Proposed Flow Arrow	Future Catch Basin
Proposed Catch Basins	Future Area Drain
Proposed Area Drain	Future Sanitary Cap
Proposed Combination Curb Inlet	Future Fire Protection Vault
Proposed Storm Reducer	Future Water Meter
Proposed Rain Drain	Future Water Backflow Device
Proposed Storm Cleanout	Future Fire Protection Valve
Proposed Storm Manhole	Future Water Bend Tee W/Valve
Proposed Sedimentation Manhole	Future Water 22 1/2" Bend
Proposed Drywell	Future Water 11 1/2" Bend
Proposed Sanitary Cap	Future 22 1/2" Bend
Proposed Sanitary Reducer	Future 11 1/2" Bend
Proposed Sanitary Cleanout	Future 45° Bend
Proposed Sanitary Manhole	Future 90° Bend
Proposed Fire Protection Vault	Future Stand Pipe
Proposed Water Meter	Future Band X
Proposed Water Backflow Device	Future Temporary Blowoff
Proposed Water Valve	Future Standard Blowoff
Proposed Water Bend Tee W/Valve	Future Thrust Block
Proposed Water Bend Tee	Future Fire Hydrant
Proposed Water 22 1/2" Bend	
Proposed Water 11 1/2" Bend	
Proposed Water 45° Bend	
Proposed Water 90° Bend	
Proposed Water Stand Pipe	
Proposed Water Bend X	
Proposed Water Temporary Blowoff	
Proposed Water Standard Blowoff	
Proposed Water Reducer	
Proposed Water Thrust Block	
Proposed Fire Hydrant	

Abbreviation Legend	Abbreviation Legend		
Acres	AC	High Water Elevation	HW
Assembly	ASSY	Hydrant	HYD
Avenue	AVE	Invert Elevation	IE
Approved	APPD	Intersection	INTX
Butterfly	BF	Invert	INV
Bulwerd	BLVD	Length	L
Benchmark	BM	Lateral	LAT
Blow Off	BO	Left	LT
Back Of Curb	BOC	Maximum	MAX
Begin Vertical Curve	BVC	Manhole	MH
Care Of	C/O	Minimum	MIN
Catch Basin	CB	Mechanical Joint	MJ
Cubic Feet	CF	Number	No. or #
Cast Iron	CI	Overhead Electric	OHE
Cement	CEM	Pavement	PAVT
Circle	CIR	Point Of Curve	PC
Centerline	CL	Power Pole	PP
Corrugated Metal Pipe	CMP	Point Of Reverse Curve	PRC
Cleanout	CO	Point Of Reverse Vertical Curve	PRVC
Combination	COMB	Point Of Tangent	PT
Compaction	COMP	Point Of Vertical Intersection	PVI
Concrete	CONC	Polyvinyl Chloride	PVC
Construction	CONST	Place	PL
Corrugated Polyethylene	CPE	Radius	R
Concrete Sewer Pipe	CSP	Right Of Way	RW
Court	CT	Restrained Joint	RJ
Cubic Yard	CY	Return	RET
Cement	CEM	Right	RT
Ductile Iron	DI	Sheet	SHT
Diameter	D/A	Stainless Steel	SS
Ductile Iron Pipe	DIP	Steel	STL
Down Spout	DS	Sidewalk	SW
Edge Of Pavement	EOP	Street	ST
End Curb Return	ER	Standard	STA
Easement	ESMT	Sanitary	STD
Existing	EXTG	Storm	SAN
Elevation	EL	Stom	STM
End Vertical Curb	ELEC	Tangent	T
Finished Floor	EV/C	Thrust Block	TB
Finished Grade	FF	Temporary Benchmark	TBM
Flange	FG	Top Of Curb	TC
Force Main	FM	Telephone	TEL
Foot / Feet	FT	Temporary	TEMP
Gas	FLG	Top Of Manhole	TOP
Galvanized Iron	GI	Typical	TYP
Ground	GRD	Underground Electric	UGE
Gate Valve	GV	Vertical Curve	VC
High Density Polyethylene	HDP	Vertical	VERT
Horizontal	HORIZ	Water	WTR
		With	W/W
		Without	W/O
		Water Meter	WM
		Yard	YD

Hatching Legend	
	Proposed Asphalt Concrete
	Proposed Cement Concrete
	Proposed Truncated Domes
	Proposed Wall
	Proposed Gravel Road

CITY OF COLLEGE PLACE
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RECORD DRAWING

MASTER LEGEND FOR:

GARRISON VILLAGE XI

A SUBDIVISION LOCATED IN THE CITY OF COLLEGE PLACE, WASHINGTON

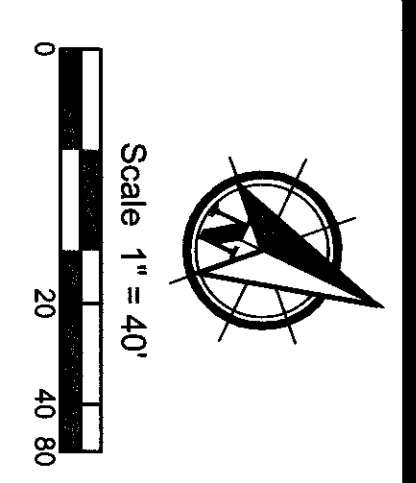
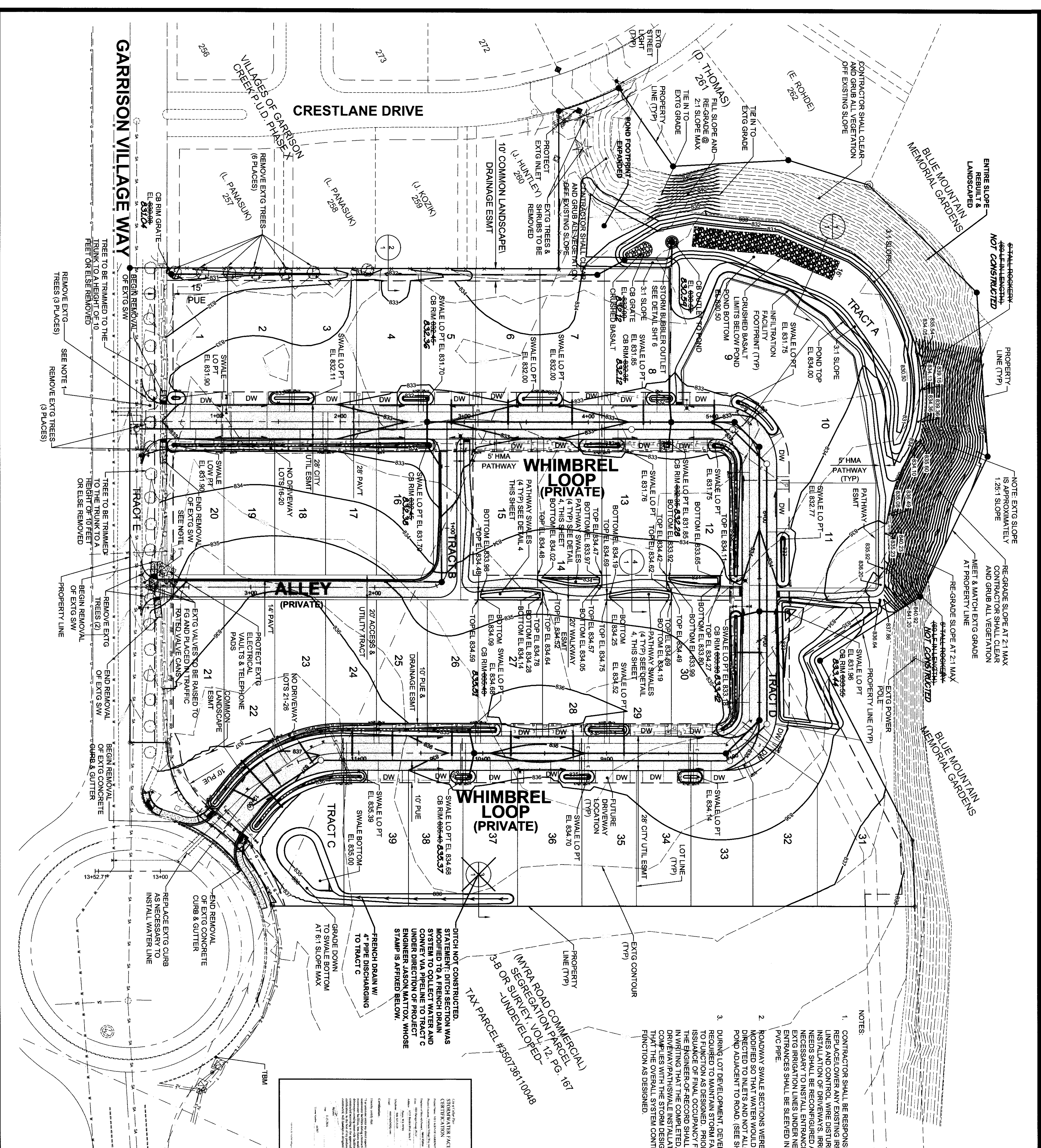


6115 Burden Blvd, Suite E
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509/547-5119
306/695-3488
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Internet: www.hdjdg.com

DESIGNER: JLM
DRAWN BY: CAD
CHECKED: JLM

SCALE: H: N/A
V: N/A
JULY 2016
3945

SHEET 4 OF 15

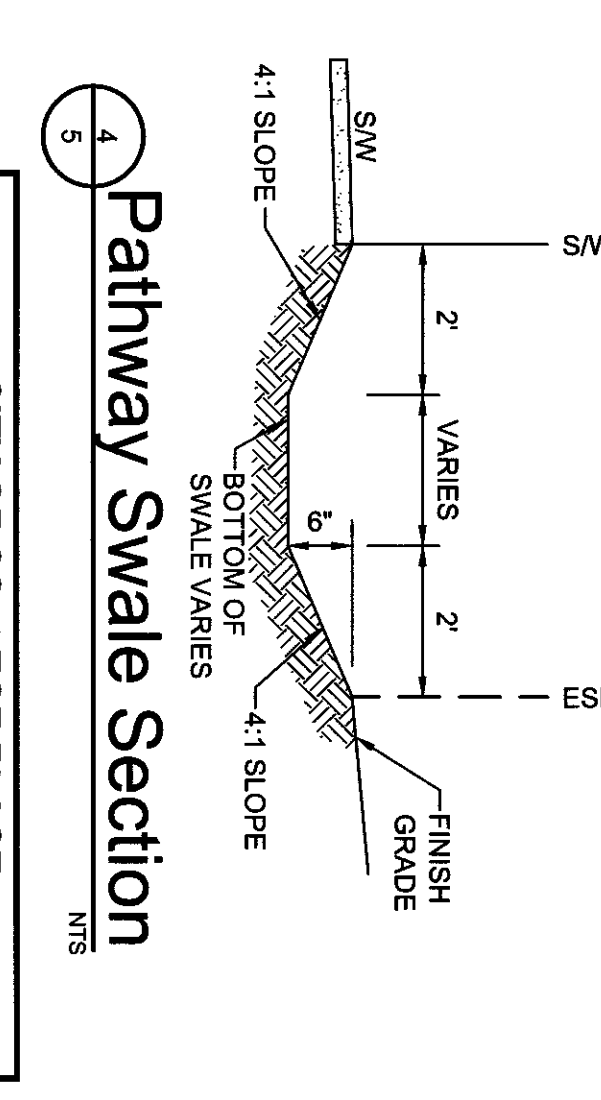
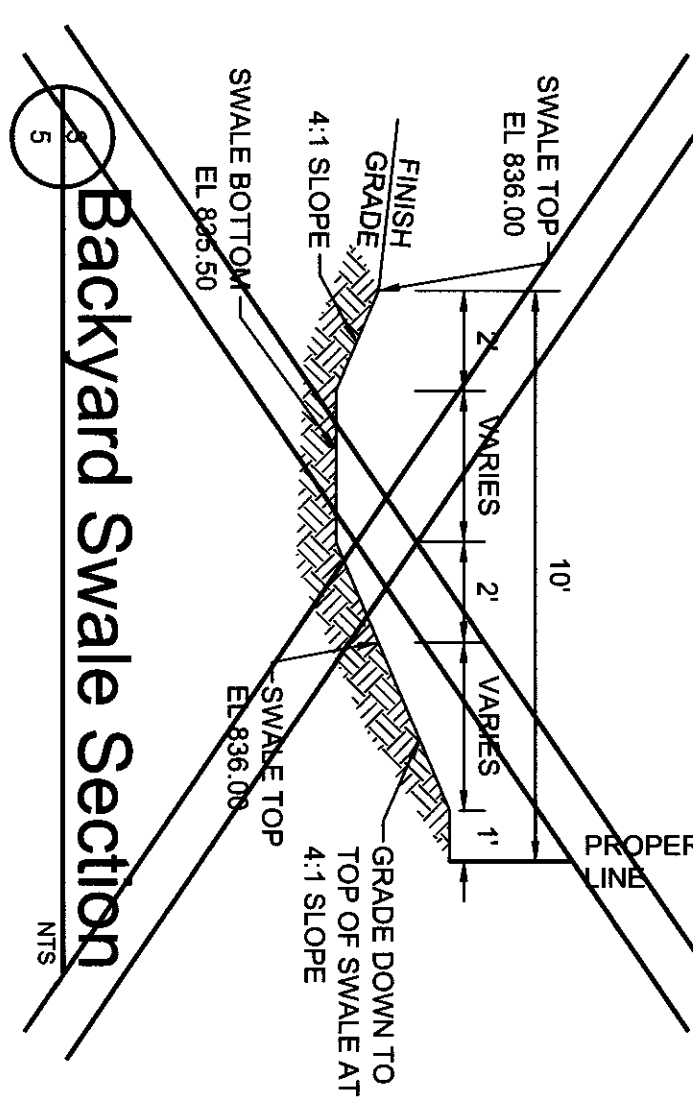
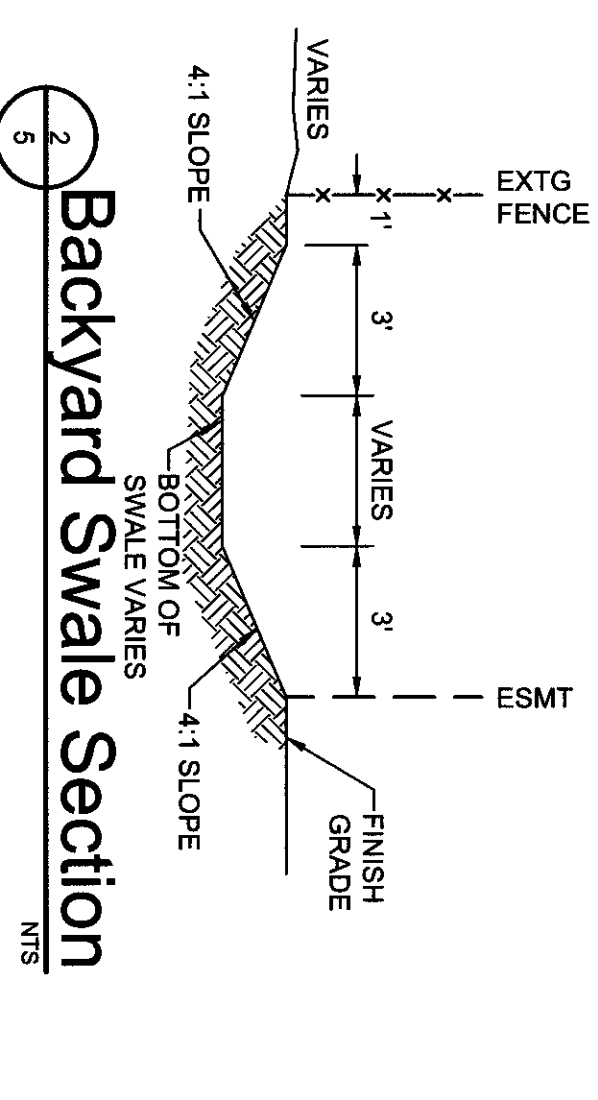
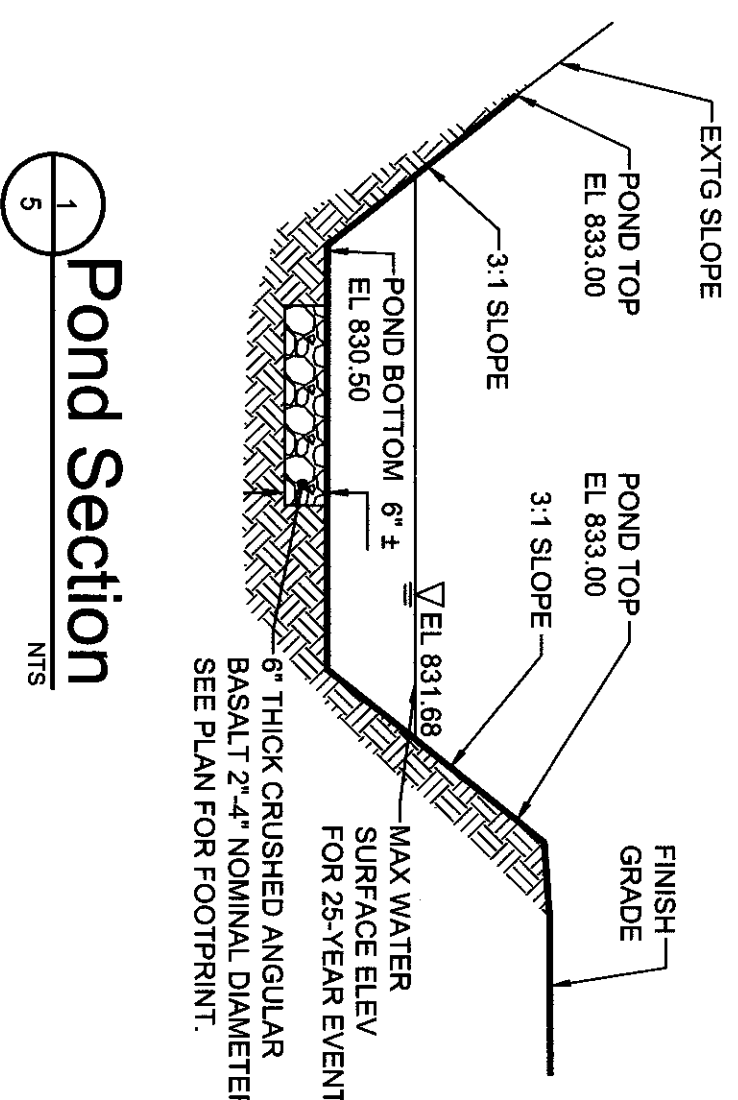
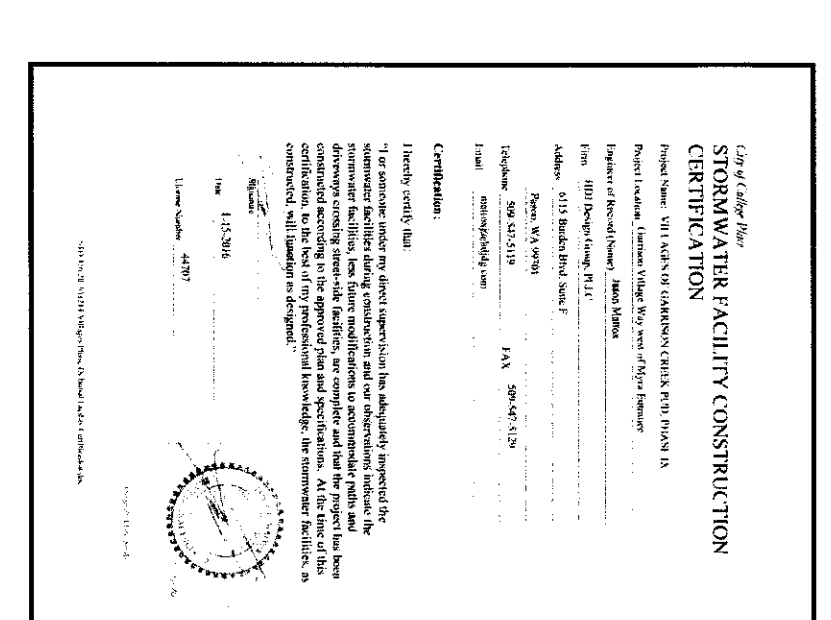


Exig Linetype Legend	
	Existing Centerline
	Exig Electric Line
	Exig Gas Line
	Existing Lot Line
	Existing Right-of-Way
	Existing Sanitary Force Main
	Exig Sanitary Sewer Pipe
	Exig Storm Sewer Pipe
	Exig Telephone Line
	Exig Water Pipe
	Existing Wetland Perimeter

- NOTES:
1. CONTRACTOR SHALL BE RESPONSIBLE TO REPLACEMENT ANY EXISTING IRRIGATION LINES AND CONTROL WIRE DISTURBED IN INSTALLATION OF DRIVEWAYS, IRRIGATION NEEDS SHALL BE RECONSTRUCTED AS ALL EXISTING UTILITY LINES UNDER NEW ENTRIES SHALL BE SLEEVED IN SCH 40 PVC PIPE.
 2. ROADWAY SWALE SECTIONS WERE MODIFIED SO THAT WATER WOULD BE DIRECTED TO INLETS AND NOT ALLOWED TO POND ADJACENT TO ROAD. (SEE SHEET 13)
 3. DURING LOT DEVELOPMENT, DEVELOPER IS REQUIRED TO MAINTAIN STORM FACILITIES TO FUNCTION AS DESIGNED. PRIOR TO ISSUANCE OF FINAL OCCUPANCY FOR LOT, THE ENGINEER-OF-RECORD SHALL CERTIFY IN WRITING THAT THE COMPLETED, FINAL DRIVEWAY/PATHWAY/SWALE INSTALLATION COMPLETES WITH THE STORM DESIGN AND THAT THE OVERALL SYSTEM CONTINUES TO FUNCTION AS DESIGNED.

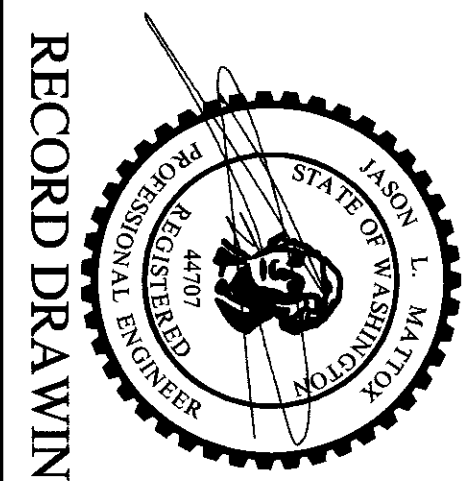
(MYRA ROAD COMMERCIAL) SEPARATION PARCEL, VOL. 12, PG. 167 OF SURVEY, NO. 10048-TAX PARCEL #30736110048

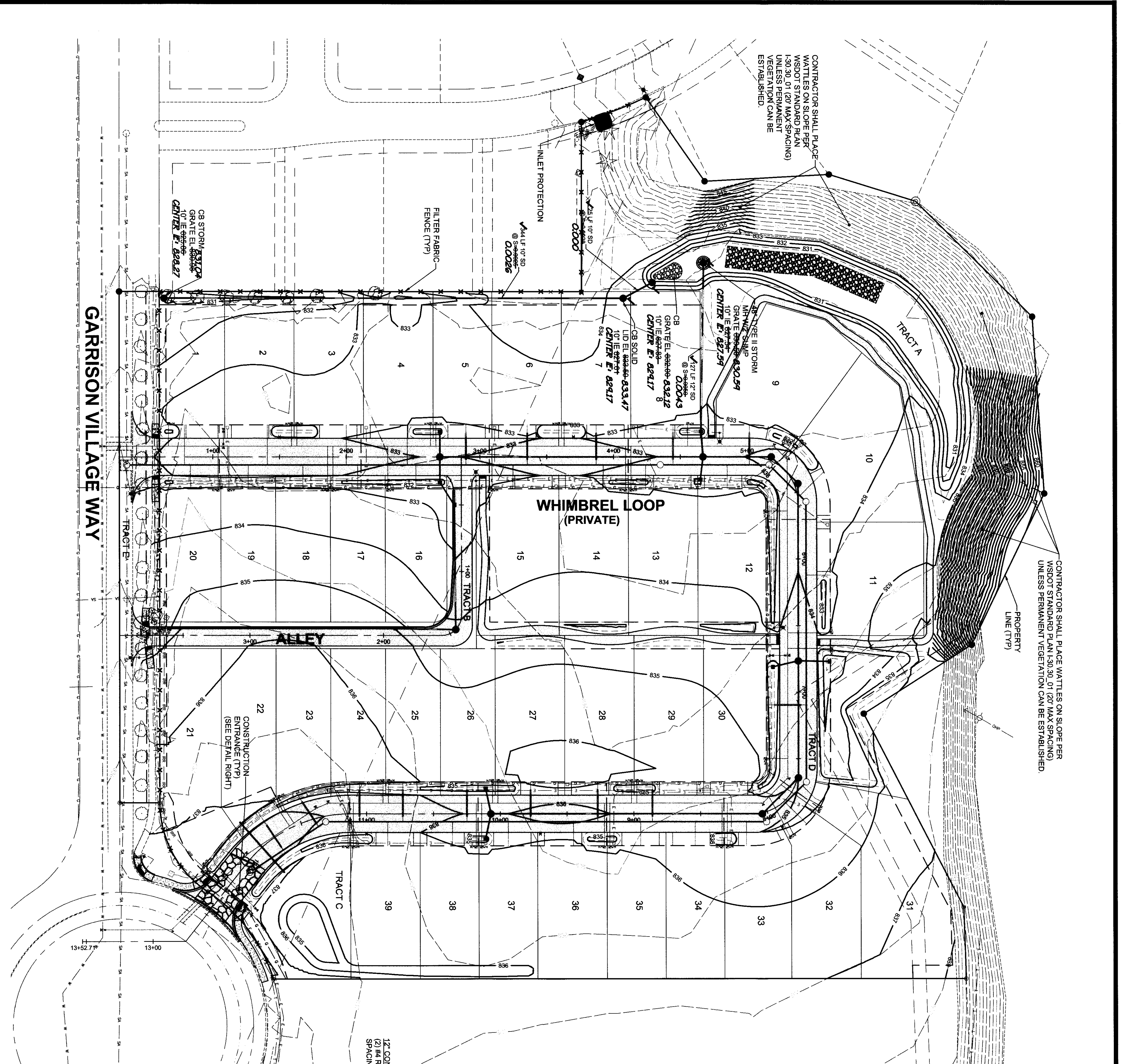
DITCH NOT CONSTRUCTED. STATEMENT: DITCH SECTION WAS MODIFIED TO A FRENCH DRAIN SYSTEM TO COLLECT WATER AND CONVEY VIA PERMEABLE TO TRACT C UNDER DIRECTION OF PROJECT ENGINEER JASON WATSON, WHOSE STAMP IS AFFIXED BELOW.



CITY OF COLLEGE PLACE

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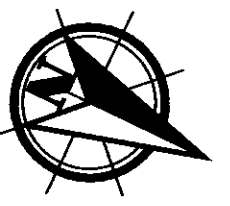




CONTRACTOR SHALL PLACE WATTLES ON SLOPE PER WSDOT STANDARD PLAN (SLOPE) (20" MAX SPACING) UNLESS PERMANENT VEGETATION CAN BE ESTABLISHED.

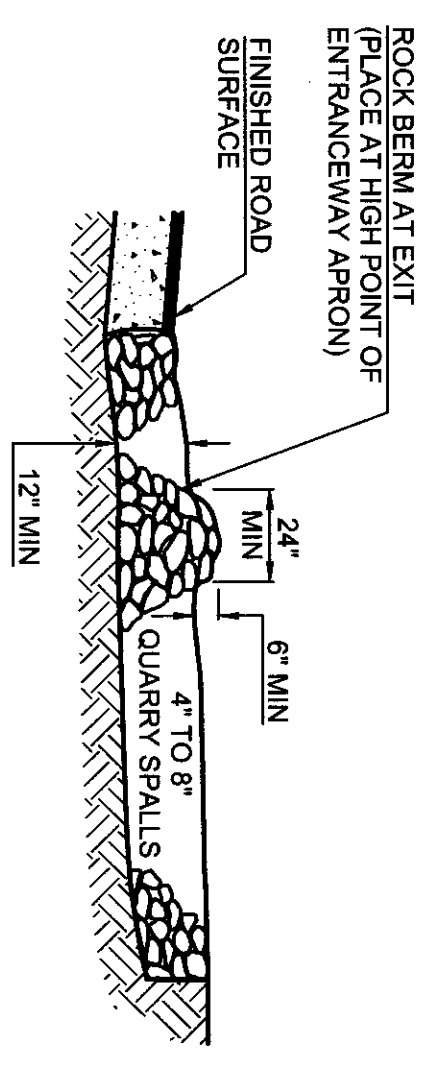
PROPERTY LINE (TYP)

Exig Linetype Legend	
Existing Centerline	---
Exig Electric Line	---
Exig Gas Line	---
Existing Lot Line	---
Existing Right-of-way	---
Existing Sanitary Force Main	---
Exig Sanitary Sewer Pipe	---
Exig Storm Sewer Pipe	---
Exig Telephone Line	---
Exig Water Pipe	---
Existing Wetland Perimeter	---
Proposed Silt Fence	---



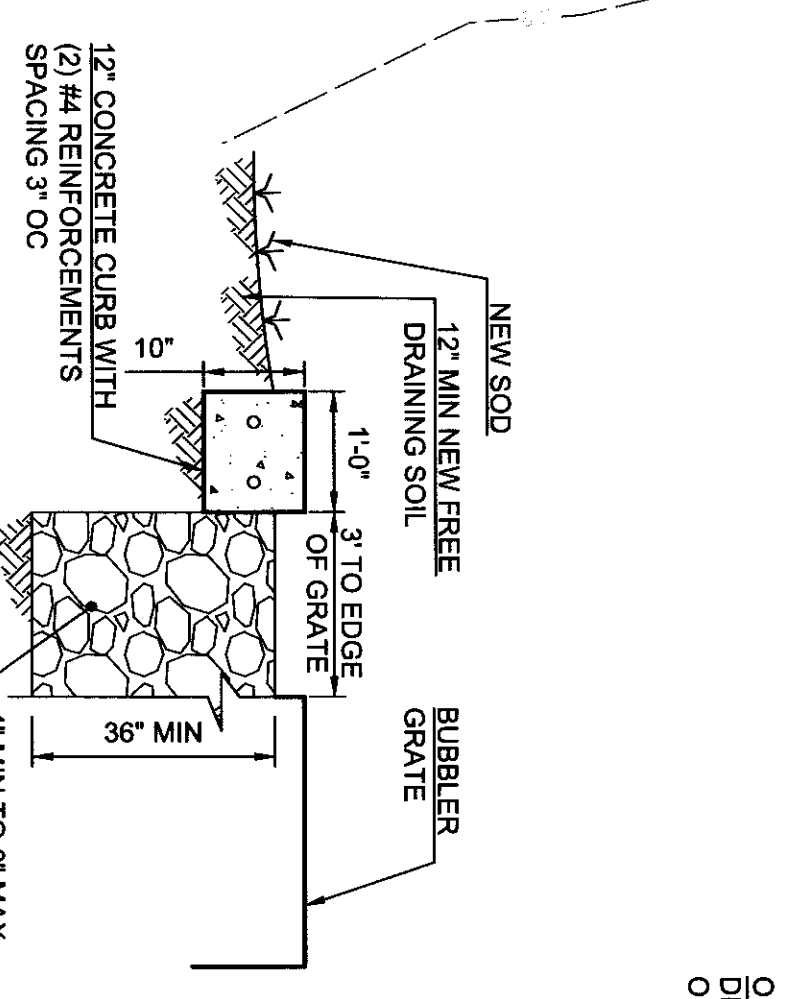
Scale 1" = 40'

- NOTE:
- UPON COMPLETION OF WORK CONTRACTOR SHALL STABILIZE SITE WITH HYDROMULCH.
 - AFTER INSTALLATION OF ON-SITE CATCH BASINS ALL GRATES SHALL HAVE A SEDIMENT TRAP PLACED ON THE GRATE.



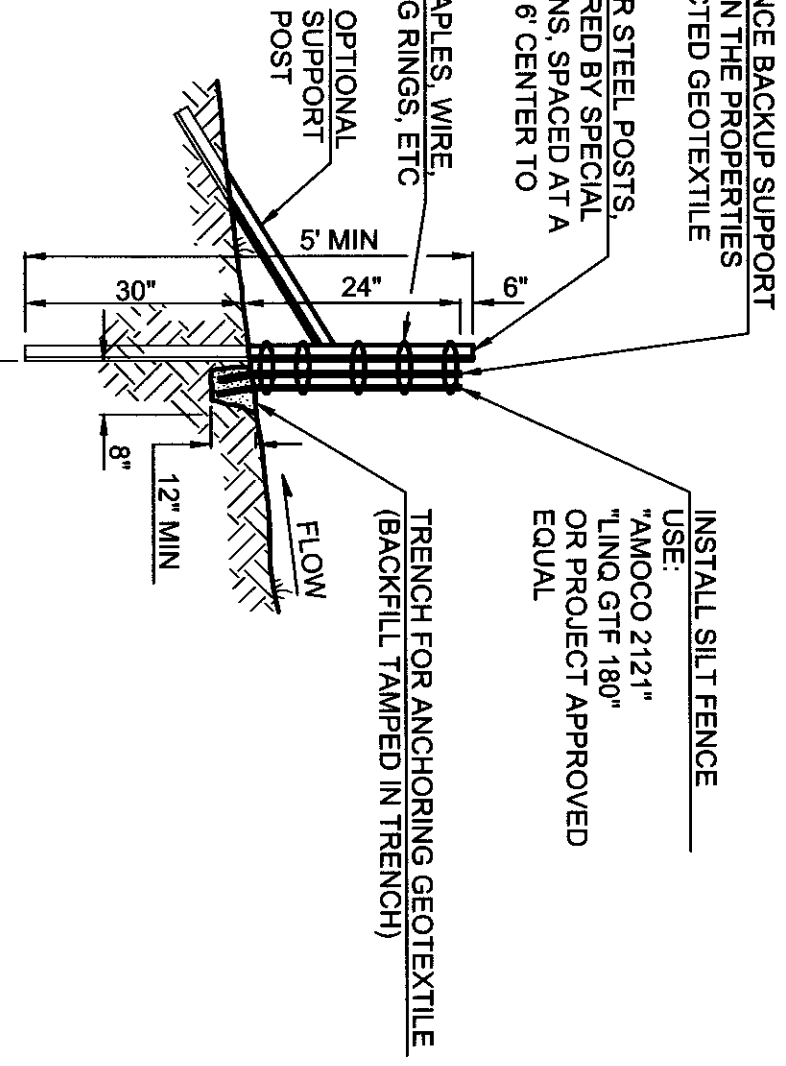
- Notes:
- Excavate minimum of 12" of existing soils.
 - Place minimum of 12" of 3" minus crushed rock.
 - Construct rock berm along transition point to Finish road surfaces; divert runoff to onsite area.

Construction Entrance

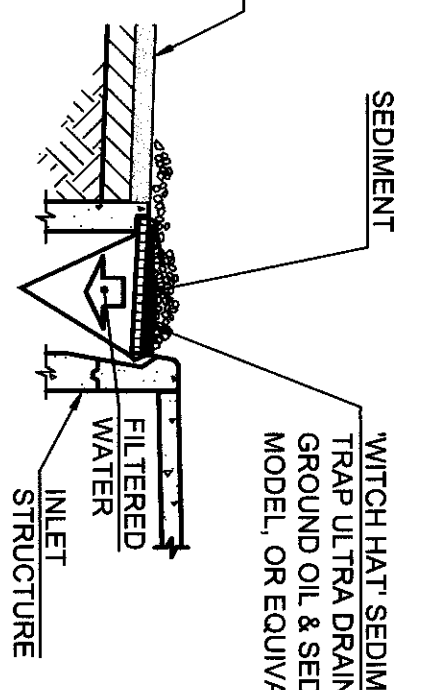


NOTE: TOP OF CURBING SHALL BE LEVEL WITH BUBBLER GRATE

Storm Bubbler Structure



Erosion Control Filter Fabric Fence



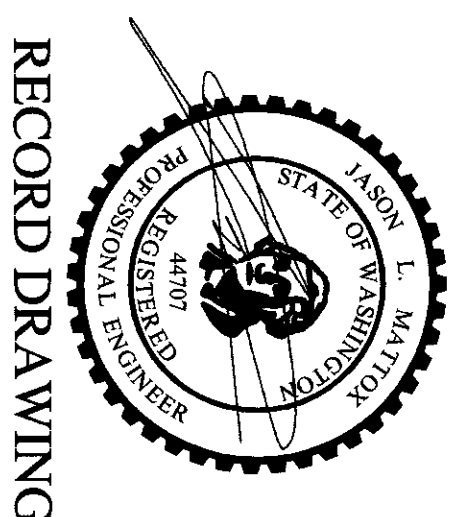
Inlet Protection

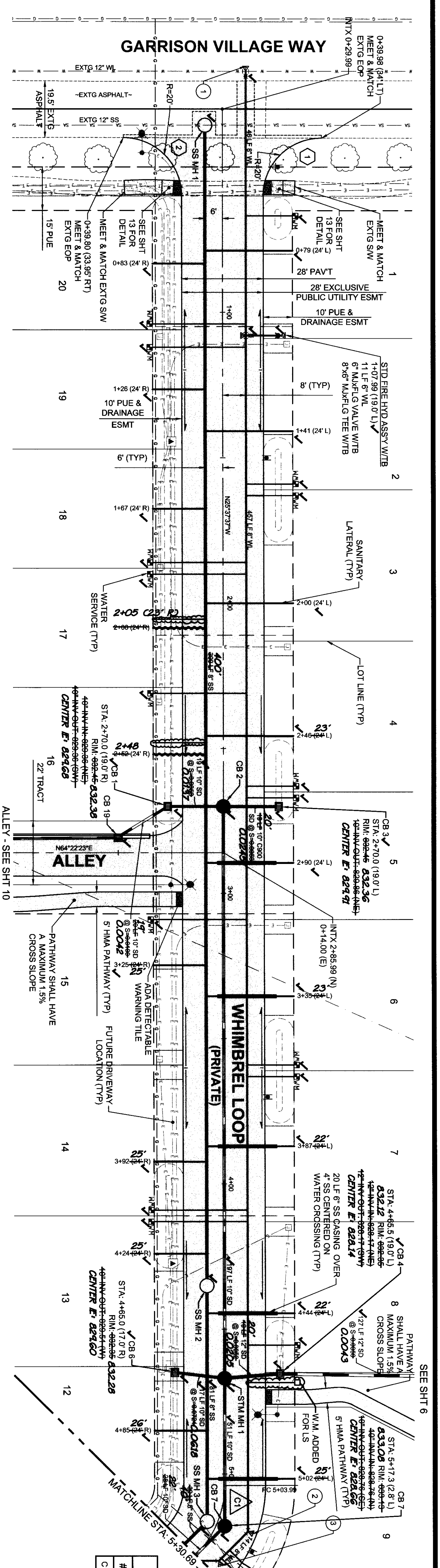
NOTE: CONTRACTOR SHALL PROVIDE INLET PROTECTION ON ALL STORM INLETS ALONG GARRISON VILLAGE WAY EAST OF SITE TO MIRA ROAD.

CITY OF COLLEGE PLACE

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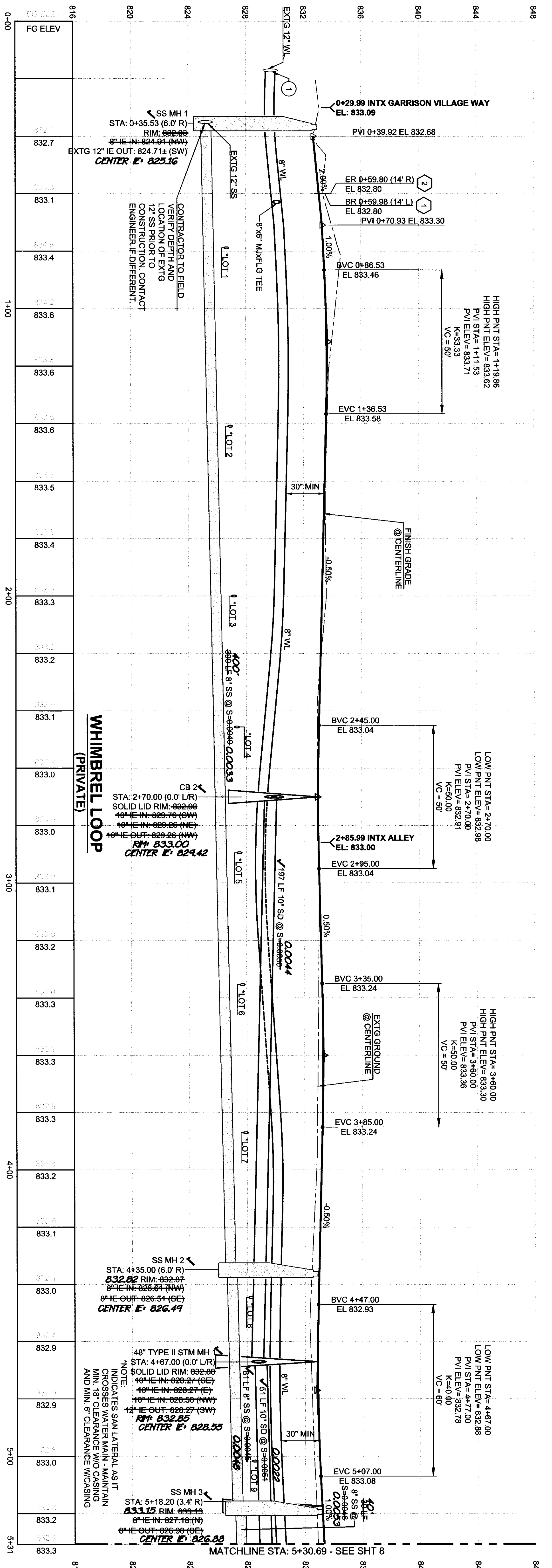


Scale 1" = 20'

SEE SHIT 6

SEE SHIT 8

CURVE DATA				
#	Δ	R	L	T
C1	90°00'00"	34.00	53.41	34.00



KEYED CONSTRUCTION NOTES:

- 0+16.99 (6.0' L) 8" TAPPING SLEEVE AND VALVE CONNECT TO EXTG 12" WL. CONTRACTOR TO FIELD VERIFY DEPTH AND LOCATION PRIOR TO CONSTRUCTION. CONTACT ENGINEER IF DIFFERENT.
- 5+16.96 (10.94' L) 8" M.A. 45° BEND W/RT 8" M.A. 45° BEND W/RT 8" M.A. 45° BEND W/RT
- 5+27.19 (7.23' L) 8" M.A. 45° BEND W/RT

ASPHALT RETURN DATA

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1	90°00'42"	20.00	31.42	0+53.39	832.80	832.54	832.28
2	89°51'09"	20.00	31.36	0+53.80	833.00	832.95	832.90

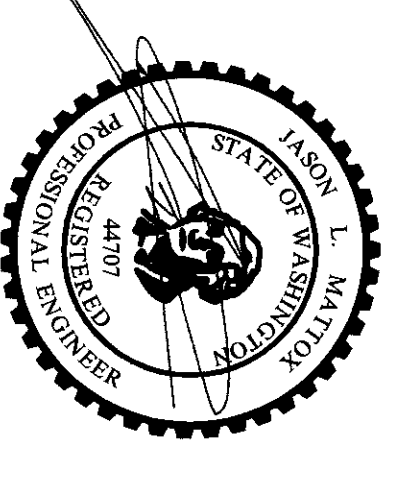
STATEMENT: SEWER LINES ARE UNDER FINANCIAL GUARANTEE FOR TWO-YEARS OF BLOCKAGE-FREE PERFORMANCE PROVIDED BY GOODMAN-MEHLBACH BY AGREEMENT WITH THE CITY OF COLLEGE PLACE DUE TO INADEQUATE SLOPE.

NOTE:
 ◻ = CURB STOP W/ MARKER
 NOTE: CITY OF COLLEGE PLACE TO INSTALL WATER METERS AND METER BOXES

CITY OF COLLEGE PLACE

Approved by City of College Place
 Date

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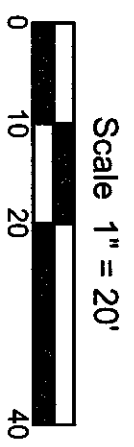
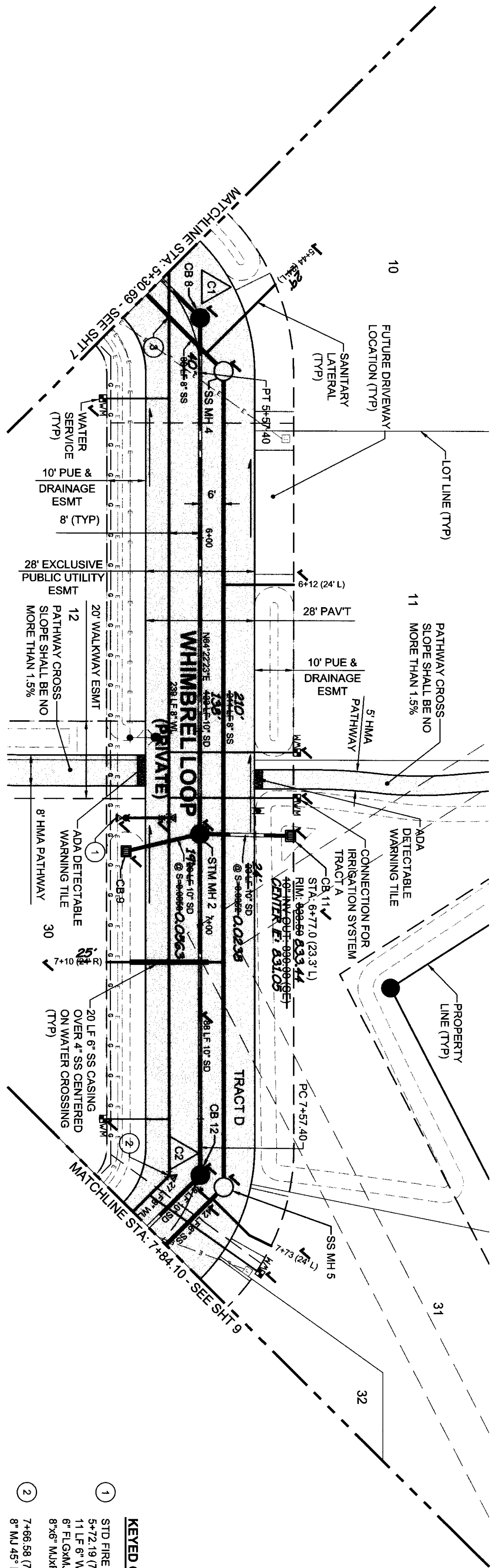
RECORD DRAWING

CHECKED: JLM
 DESIGNED: JLM
 DRAWN BY: JLM

WHIMBREL LOOP PLAN & PROFILE FOR: GARRISON VILLAGE XI
 A SUBDIVISION LOCATED IN THE CITY OF COLLEGE PLACE, WASHINGTON



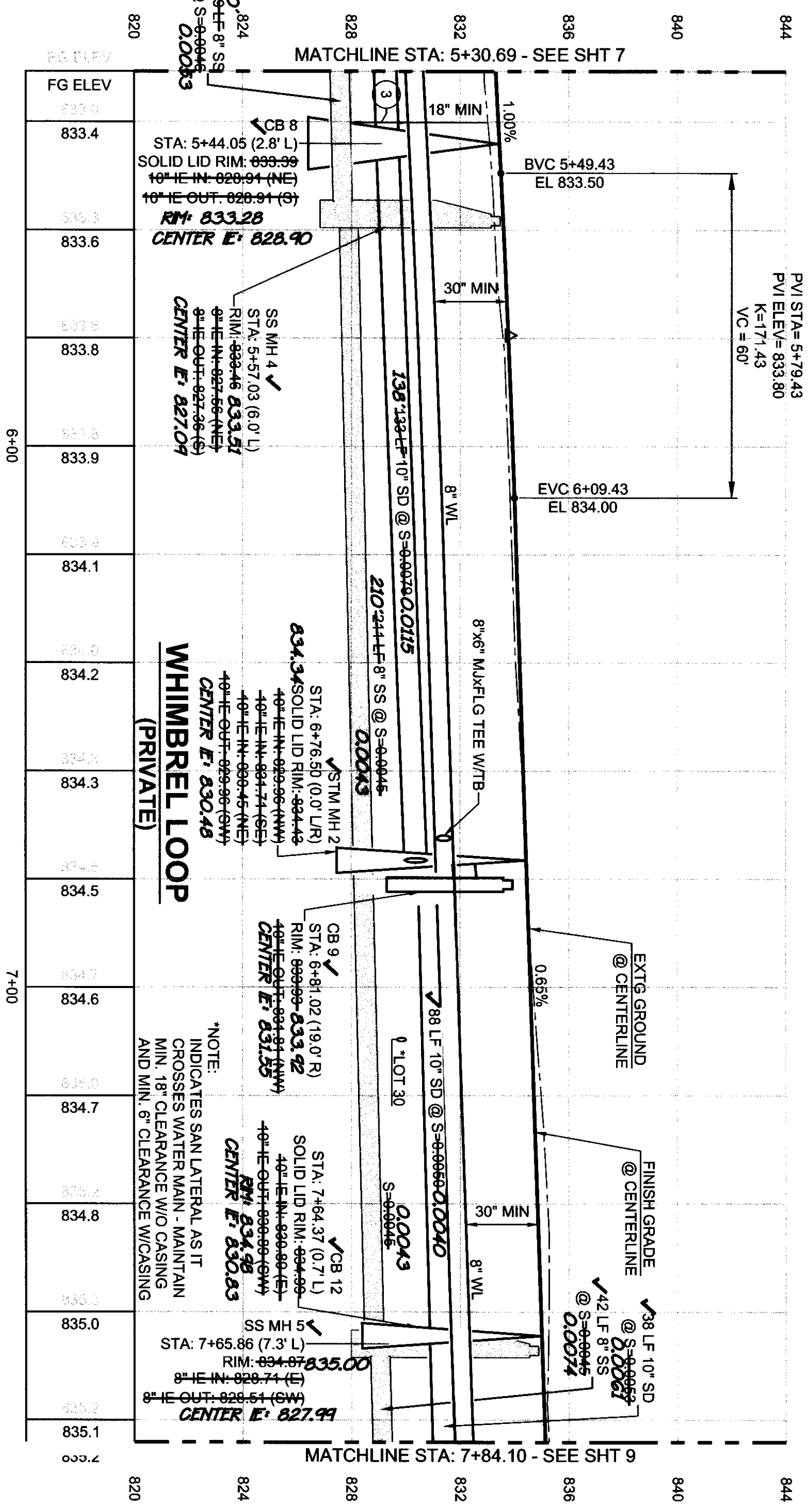
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 306/695-3488
 509/547-5129 fax
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CURVE DATA				
#	A	R	L	T
C1	90°00'00"	34.00	53.41	34.00
C2	90°00'00"	34.00	53.41	34.00

KEYED CONSTRUCTION NOTES:

- ① STD FIRE HYD ASS'Y W/IB
5-72.19 (7.23' L)
11 LF 6" WL
6" FLGVAL VALVE W/IRJ
8"x6" M/KR/LG TEE W/IB
- ② 7-666.58 (7.02' R)
8" M/J 45° BEND W/IRJ
- ③ MAINTAIN 18" MIN CLEARANCE FOR WATER MAIN CROSSING OVER SEWER MAIN.

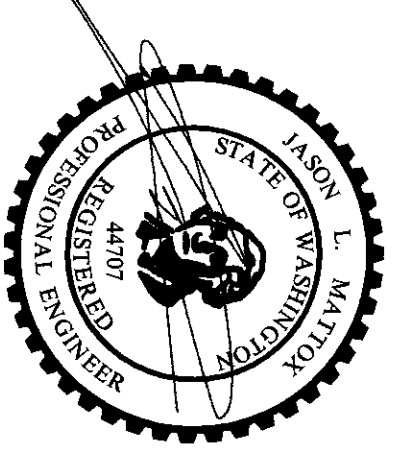


NOTE:
 ◻ = CURB STOP W/MARKER
 NOTE: CITY OF COLLEGE PLACE TO INSTALL WATER METERS AND METER BOXES

CITY OF COLLEGE PLACE

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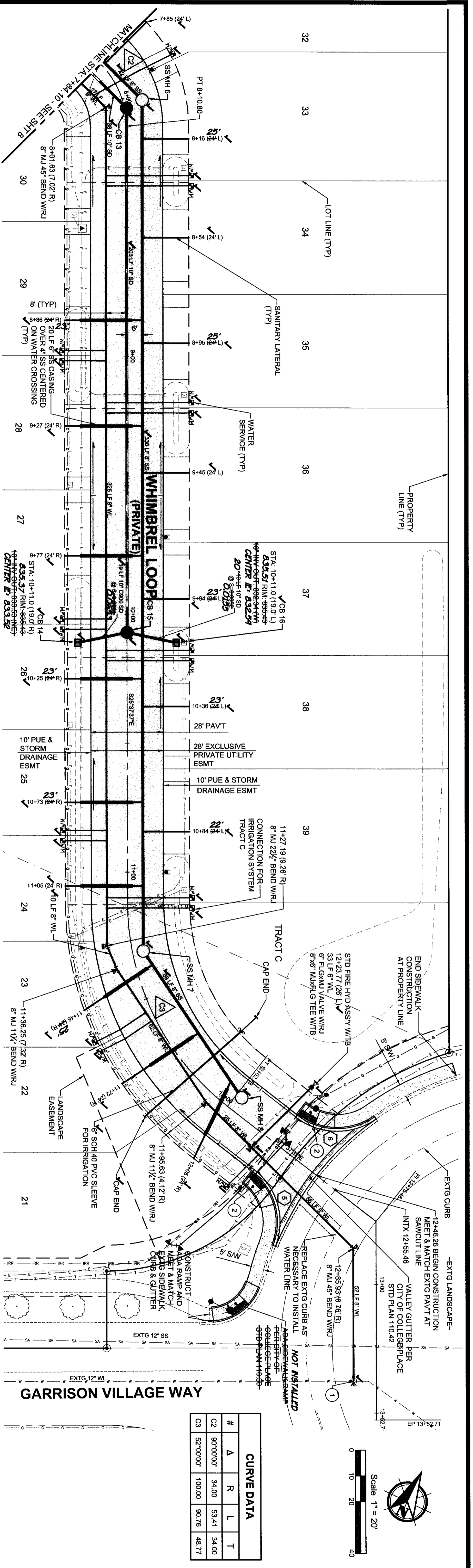
GARRISON VILLAGE XI

A SUBDIVISION LOCATED IN THE CITY OF COLLEGE PLACE, WASHINGTON

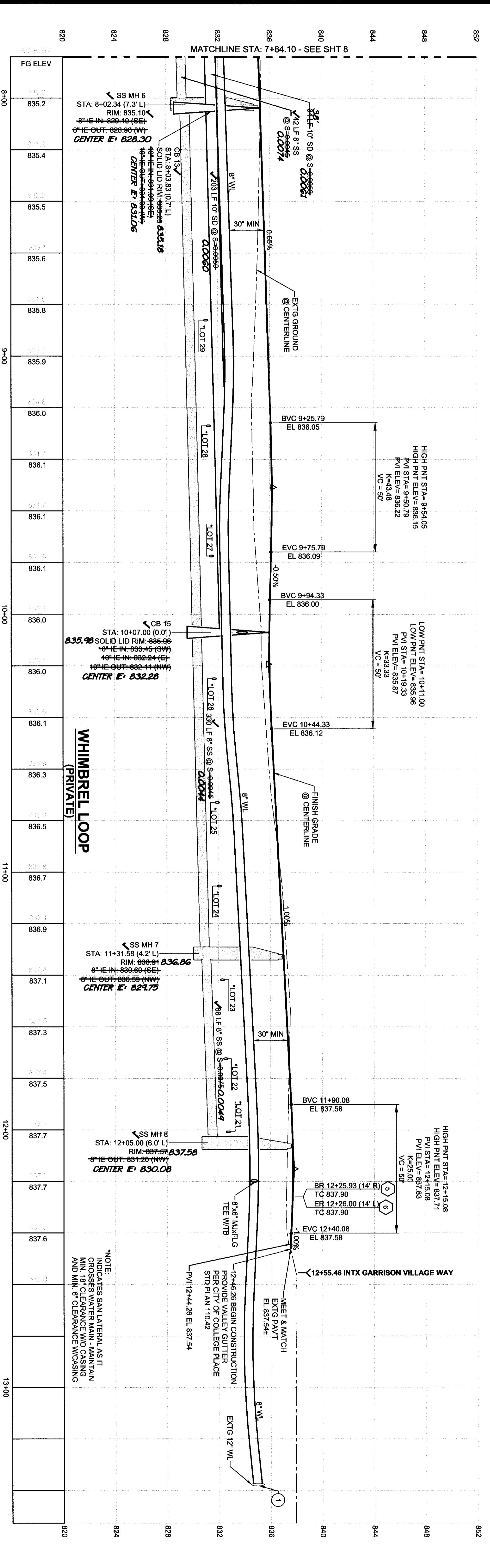
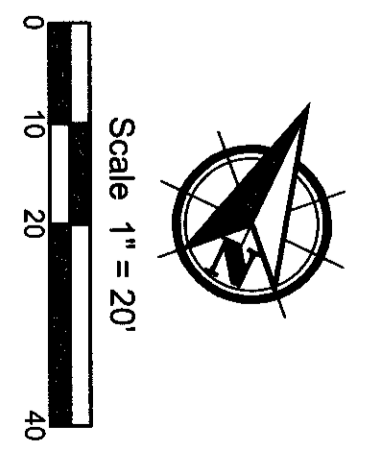


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DESIGNED: JLM	SHEET
DRAWN BY: JLM	
CHECKED: JLM	8 15
SCALE: H: 1" = 20' V: 1" = 4'	
JULY 2016	
3945	



CURVE DATA				
#	Δ	R	L	T
C2	90°00'00"	34.00	53.41	34.00
C3	52°00'00"	100.00	90.76	48.77



KEYED CONSTRUCTION NOTES:

- 13+37.71 (6.76' R) 3" TAPPING SLEEVE & VALVE CONNECT TO EXTG 12" WL. CONTRACTOR TO FIELD VERIFY DEPTH AND LOCATION PRIOR TO CONSTRUCTION. CONTACT ENGINEER IF DIFFERENT.
- ADA SIDEWALK RAMP PER CITY OF COLLEGE PLACE STD PLAN 110.34

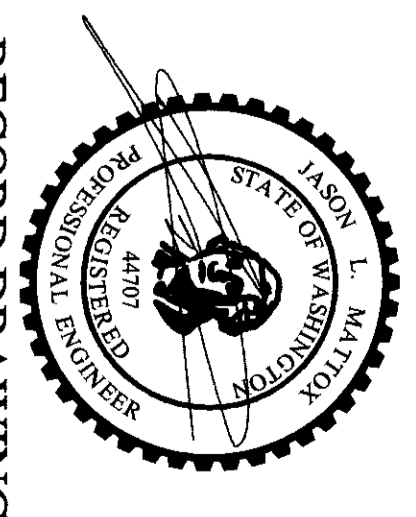
CURB RETURN DATA									
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5	75°23'54"	25.00	32.90	12+25.93	147°R	12+49.88	14.7	837.90	837.68
6	73°16'34"	25.00	31.97	12+49.84	147°R	12+28.00	14.7	838.24	837.90

*ELEVATIONS DO NOT REFLECT DEPRESSIONS FOR CURB RAMPS

NOTE:
 1. CURB STOP WIDENING
 2. CITY OF COLLEGE PLACE TO INSTALL WATER METERS AND METER BOXES

CITY OF COLLEGE PLACE

Utility Locate
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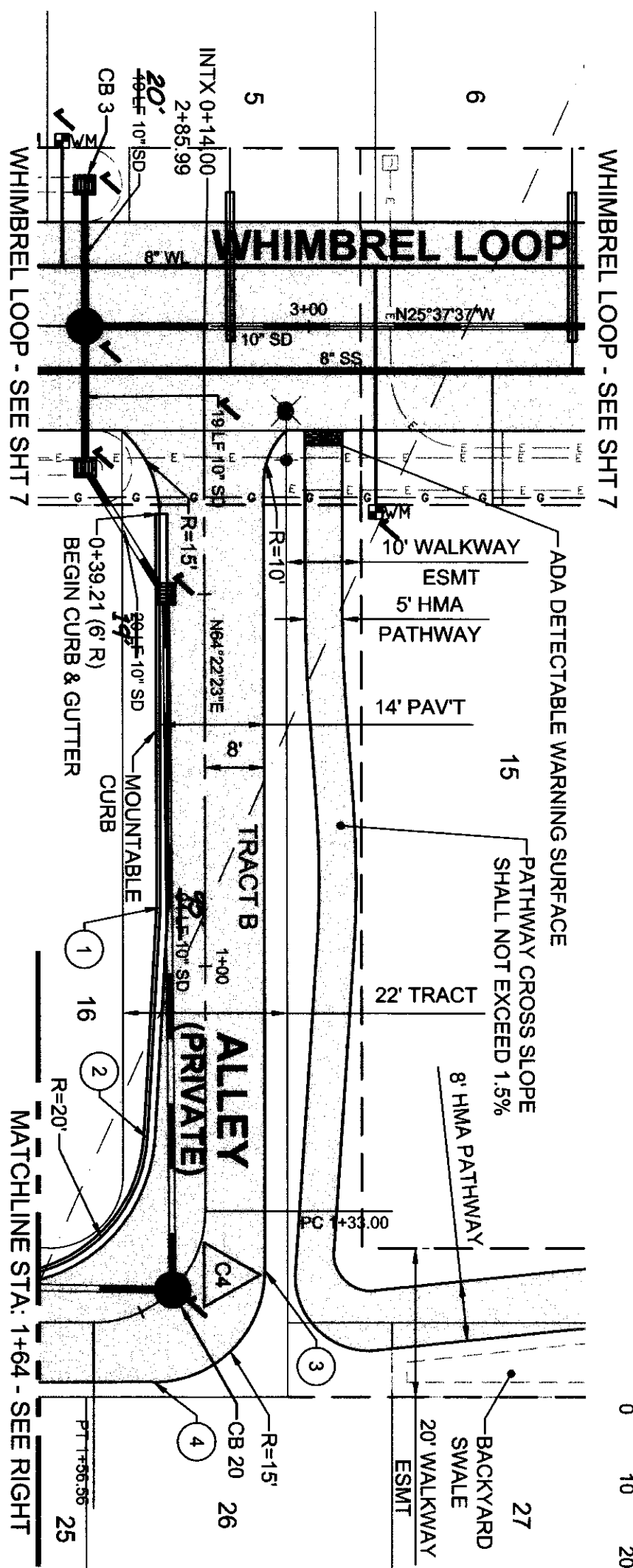


WHIMBREL LOOP PLAN & PROFILE FOR:
GARRISON VILLAGE XI
 A SUBDIVISION LOCATED IN THE CITY OF COLLEGE PLACE, WASHINGTON

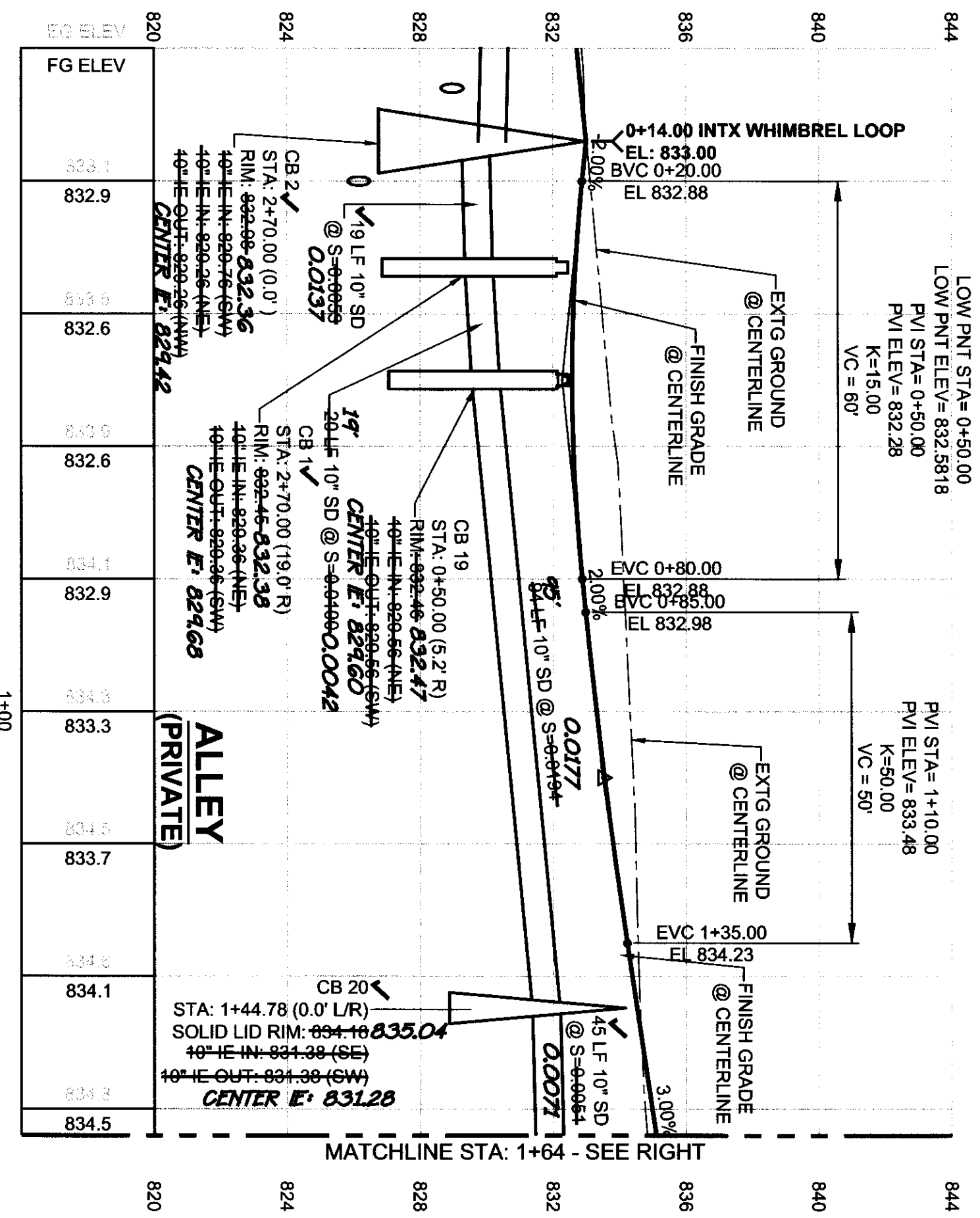
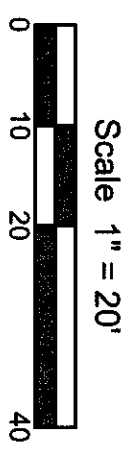


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 DRAWN BY: JLM
 CHECKED: JLM
 SCALE: H: 1" = 20'
 V: 1" = 4'
 JULY 2016
 SHEET 9 OF 15

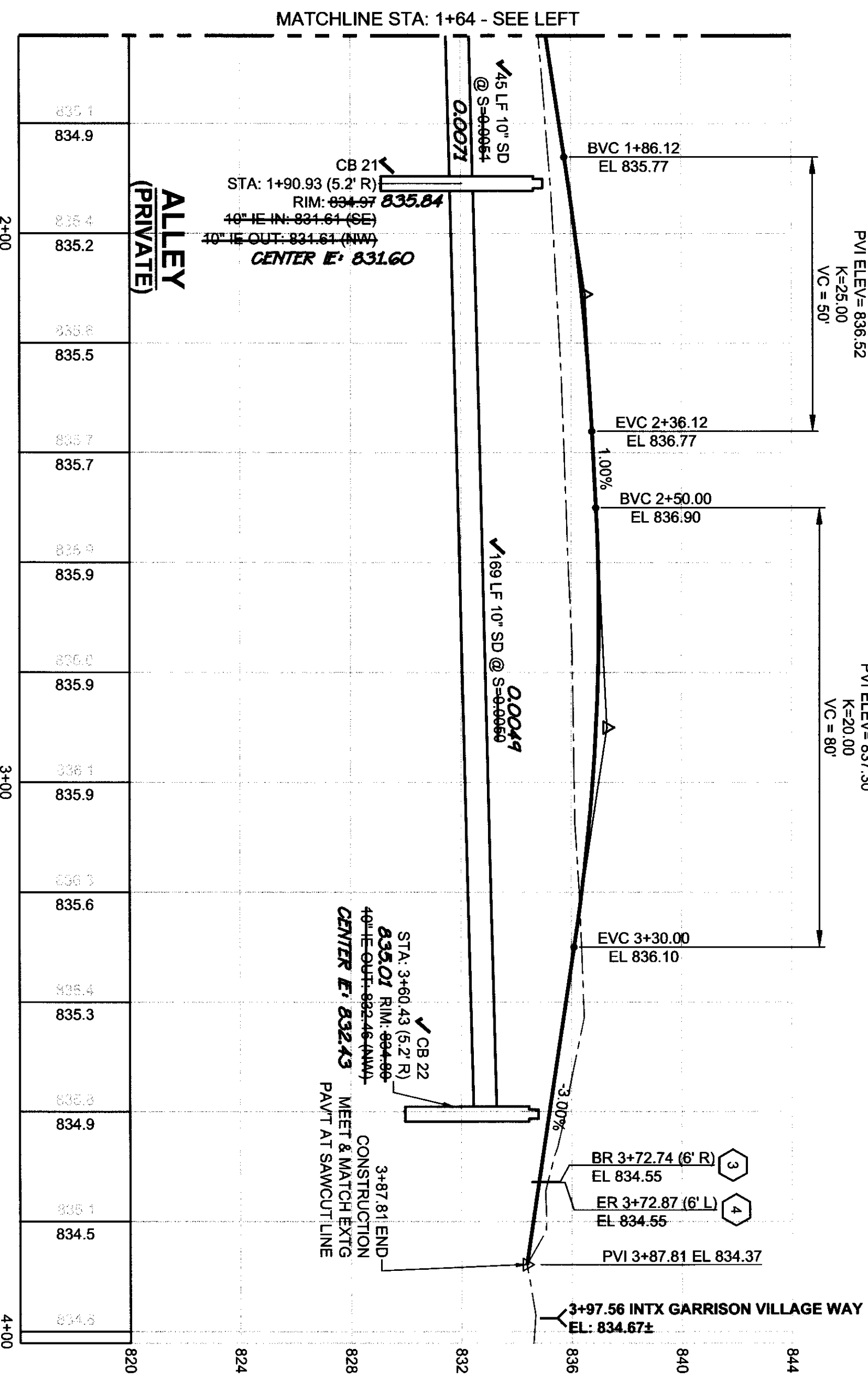
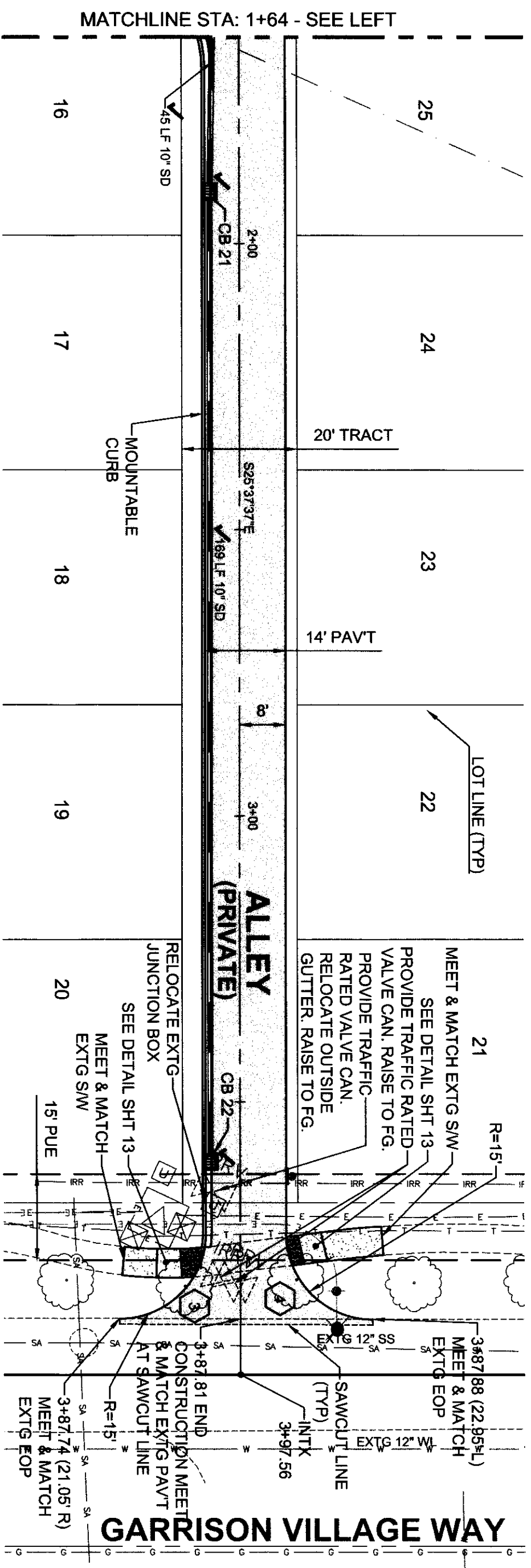
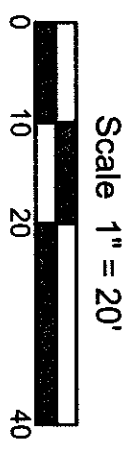


CURVE DATA				
#	Δ	R	L	T
C4	90°00'00"	15.00	23.56	15.00



KEYED CONSTRUCTION NOTES:

- 1 0+92.10 (6.00' R) BEGIN WIDENING
- 2 1+23.14 (7.78' R) END WIDENING BEGIN CURB RADIUS.
- 3 1+38.02 (9.35' L) BEGIN ASPHALT RADIUS
- 4 1+51.54 (9.35' L) END ASPHALT RADIUS



ASPHALT RETURN DATA

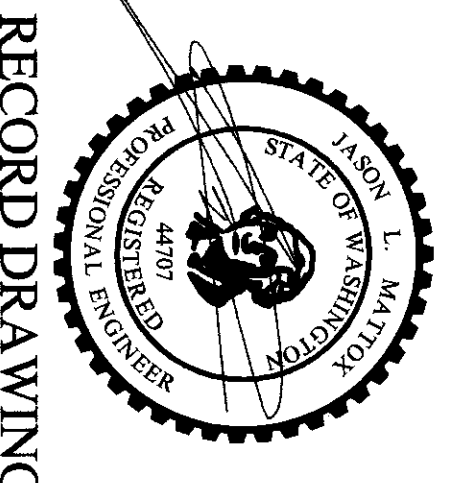
#	Δ	R	L	BEIN STA	EDGE OF PAVT OFFSET	BCR	1/4PT	1/2PT	3/4PT	ECR	END STA
3	90°10'24"	15.00	23.61	3+72.74	6' R	834.55	834.42	834.27	834.12	834.00	3+87.74
4	89°49'37"	15.00	23.52	3+87.88	8' R	834.78	834.71	834.69	834.74	834.83	3+72.88

NOTE:
 1. CURB STOP W/MARKER
 2. CITY OF COLLEGE PLACE TO INSTALL
 3. WATER METERS AND METER BOXES

CITY OF COLLEGE PLACE

Approved by City of College Place _____ Date _____

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ALLEY PLAN & PROFILE FOR:

GARRISON VILLAGE XI

A SUBDIVISION LOCATED IN THE CITY OF COLLEGE PLACE, WASHINGTON



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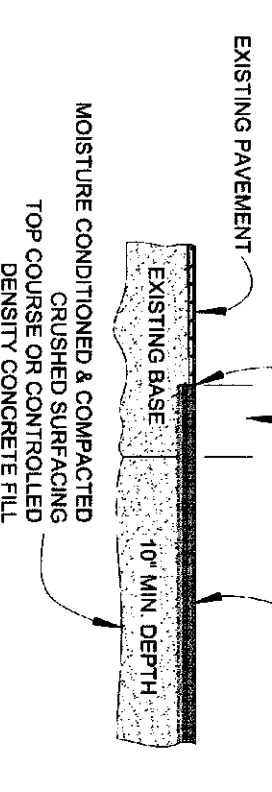
DESIGNED: JLM	DRAWN BY: JLM
CHECKED: JLM	SCALE: H: 1" = 20' V: 1" = 4'
SHEET 10	SHEET 15

CITY OF COLLEGE PLACE - STANDARD SPECIFICATIONS

LOCAL & COLLECTOR STREETS

SAW CUT BACK 4 MIN. OF 12" ASPHALT VERTICAL CUTS OVER UNDISTURBED MATERIAL

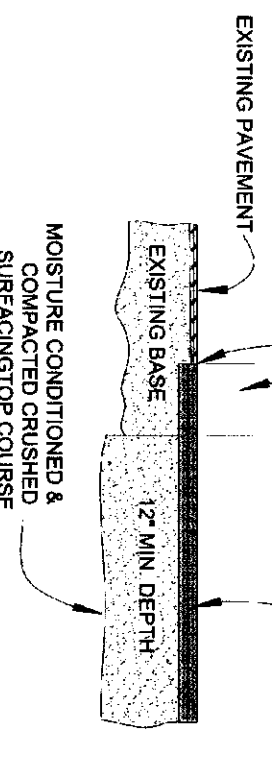
3" MINIMUM ASPHALT PATCH



ARTERIAL STREETS

SAW CUT BACK 4 MIN. OF 12" ASPHALT VERTICAL CUTS OVER UNDISTURBED MATERIAL

3" MINIMUM ASPHALT PATCH



NOTES

1. AFTER DITCH BACK FILL HAS BEEN COMPACTED, AN ADDITIONAL 12" WILL BE REMOVED FROM EACH EDGE OF THE ORIGINAL CUT AND COMPACTED TO 95% MAX. DENSITY. BASE ROCK SHALL BE PLACED IN 4" OR LESS LIFTS.
2. ALL BACK FILL SHALL BE UNIFORM, V. MOISTURE CONDITIONED AND COMPACTED TO 95% MAX. DENSITY. BASE ROCK SHALL BE PLACED IN 4" OR LESS LIFTS.
3. CO. D MIX MAY BE USED TEMPORARILY UNTIL HOT MIX ASPHALT IS AVAILABLE.

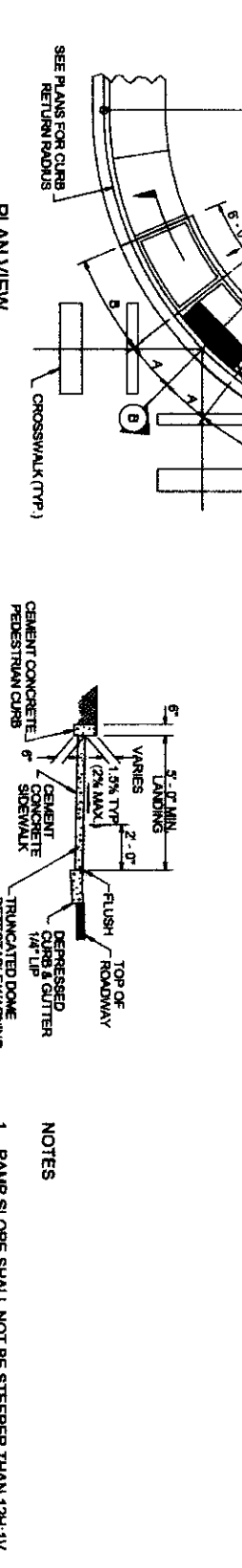
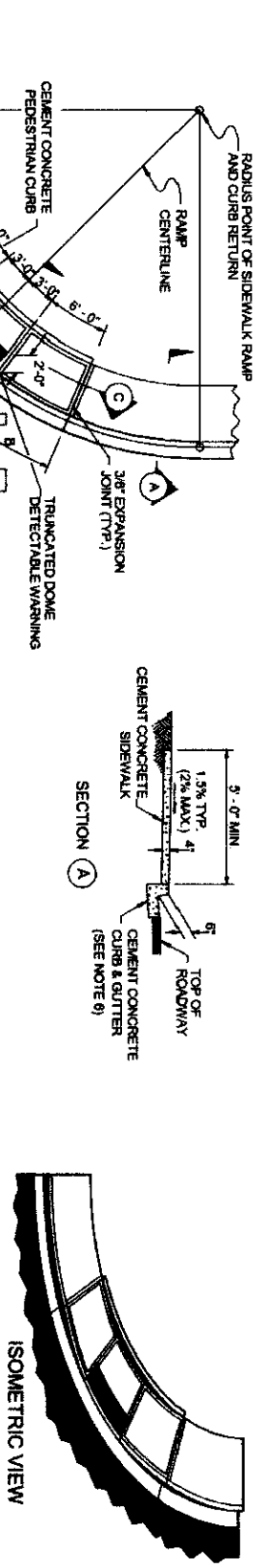
CITY ENGINEER: Robert Gordon, P.E.
LAST REVISION: OCTOBER 2013

TYPICAL PATCH FOR FLEXIBLE PAVEMENTS

STANDARD PLAN 710.09

This drawing is Not To Scale

CITY OF COLLEGE PLACE - STANDARD SPECIFICATIONS



FOOT COUNTERS SUBWAY

MIN. C. CHISEL	A	B
0 FEET	3'-0"	6'-0"
10 FEET	3'-0"	6'-0"
20 FEET	3'-0"	6'-0"
30 FEET	3'-0"	6'-0"
40 FEET	3'-0"	6'-0"
50 FEET	3'-0"	6'-0"
60 FEET	3'-0"	6'-0"
70 FEET	3'-0"	6'-0"

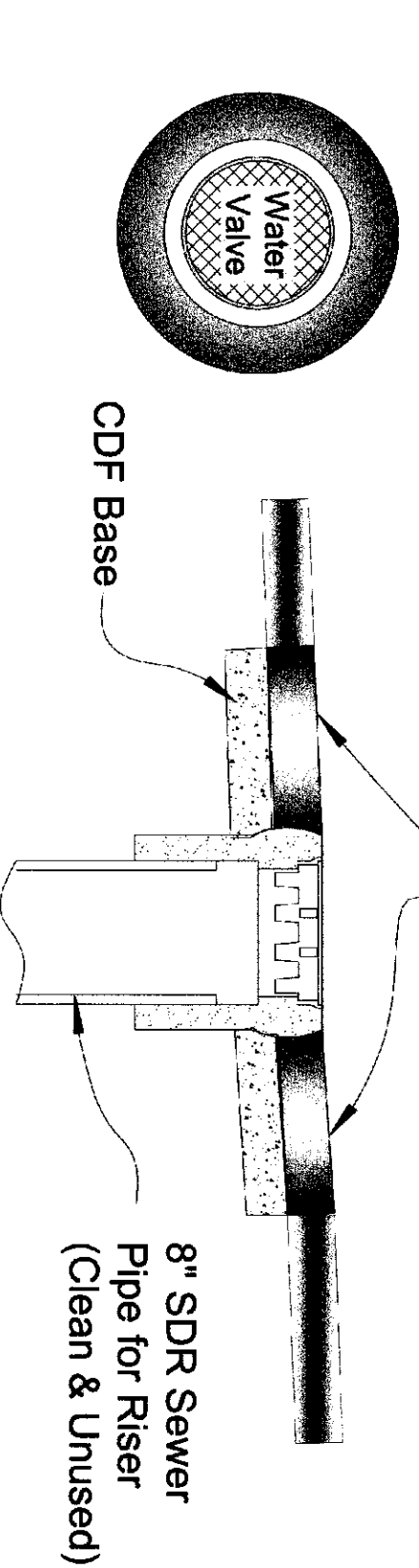
Minimum Value Over Specifications

ADA SIDEWALK RAMP TYPE A

STANDARD PLAN 710.30

This drawing is Not To Scale

CITY OF COLLEGE PLACE - STANDARD SPECIFICATIONS



Hot Mix Asphalt placed at the time the road is paved.

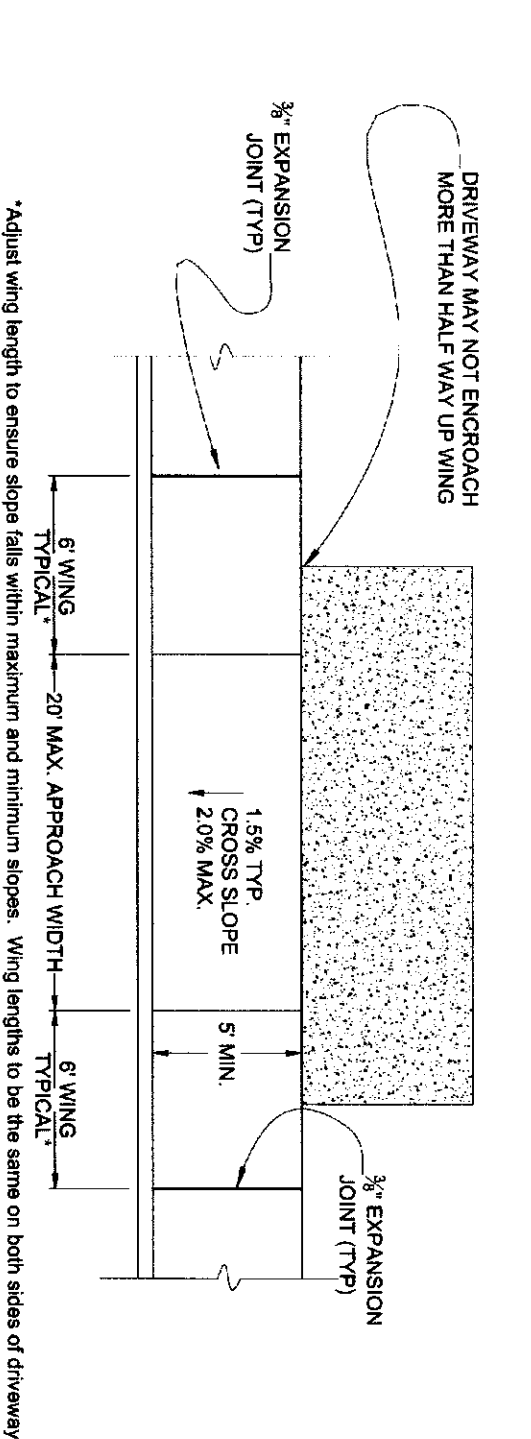
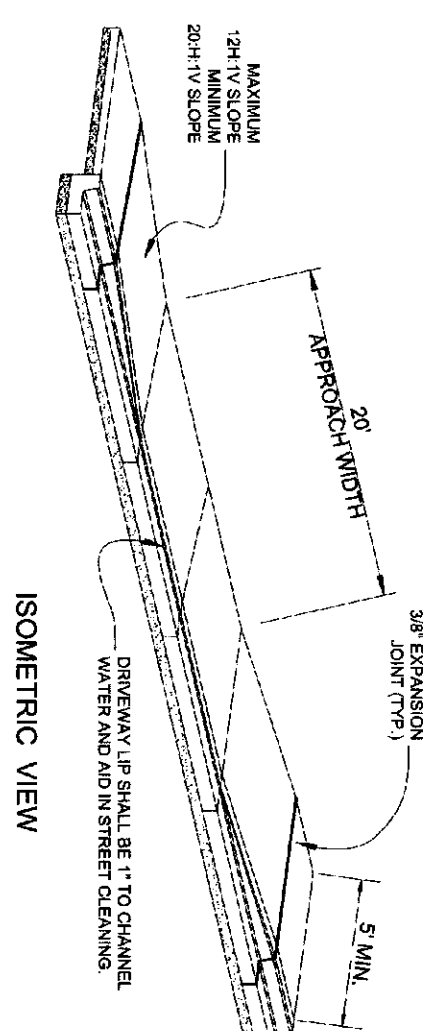
CITY ENGINEER: Robert Gordon, P.E.
LAST REVISION: FEBRUARY 2014

VALVE BOX COLLAR PLACEMENT

STANDARD PLAN 210.03

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CITY OF COLLEGE PLACE - STANDARD SPECIFICATIONS



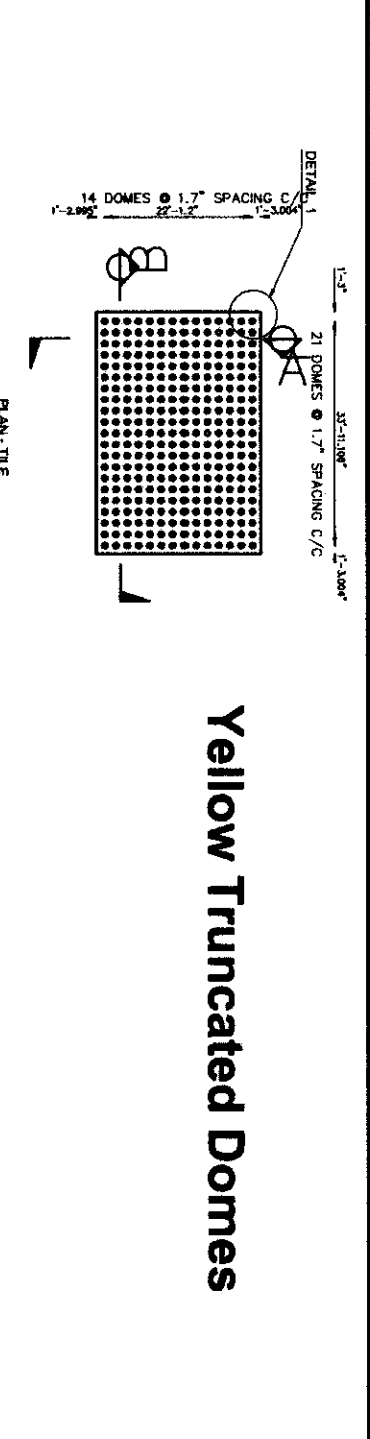
CITY ENGINEER: Robert Gordon, P.E.
LAST REVISION: OCTOBER 2013

RESIDENTIAL APPROACH

STANDARD PLAN 710.11

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CITY OF COLLEGE PLACE - STANDARD SPECIFICATIONS



Yellow Truncated Domes

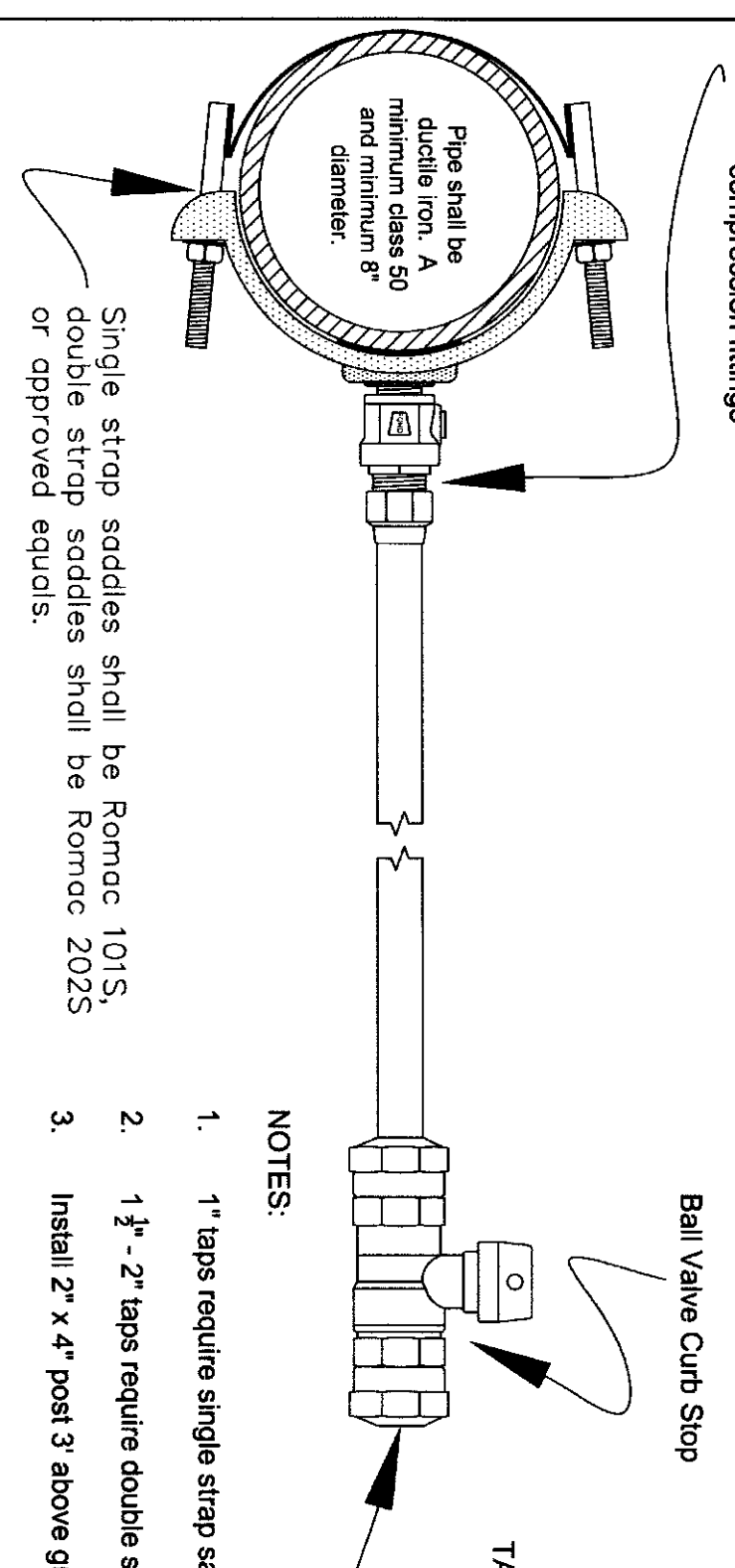
CITY ENGINEER: Robert Gordon, P.E.
LAST REVISION: NOVEMBER 2013

ADA ARMOR TILE 24 x 36

STANDARD PLAN 710.36

This drawing is Not To Scale

CITY OF COLLEGE PLACE - STANDARD SPECIFICATIONS



Ball Valve Curb Stop

- NOTES:**
1. 1" taps require single strap saddle minimum.
 2. 1 1/2" - 2" taps require double strap saddles.
 3. Install 2" x 4" post 3' above ground.

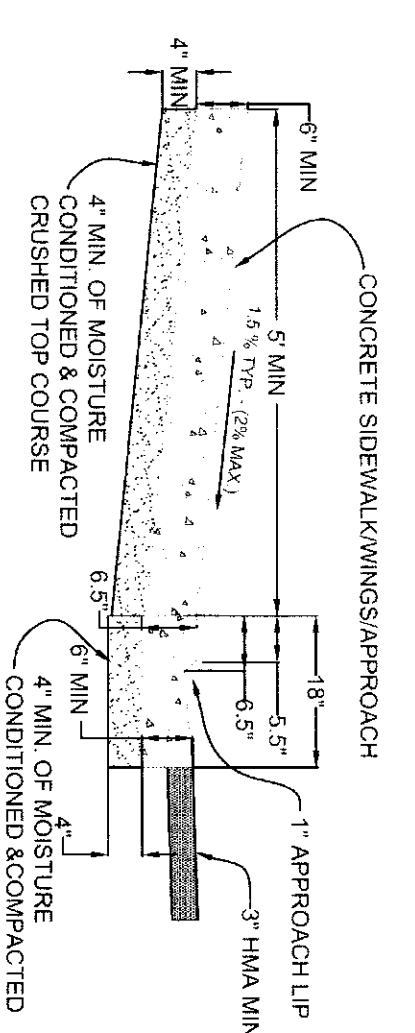
CITY ENGINEER: Robert Gordon, P.E.
LAST REVISION: JUNE 2007

STANDARD WATER SERVICE STUB CONNECTION COMPONENTS

STANDARD PLAN 210.05

This drawing is Not To Scale

CITY OF COLLEGE PLACE - STANDARD SPECIFICATIONS



- NOTES**
1. ALL REPAIR/REPLACEMENT WORK SHALL BE SAW CUT SMOOTH AND EVEN AT THE CURB, SIDEWALK, AND GUTTER EDGES.
 2. ASPHALT SHALL BE SAW CUT BACK 12" AND HAVE A SMOOTH EDGE BEFORE BEING PATCHED. SEE DETAIL STANDARD 110.09.
 3. THE HORIZONTAL CURB AND GUTTER SECTION MUST BE COMPLETELY REMOVED AND REPAIRED UNDER SAW CUTTING ON CURBS IS APPROVED BY CITY ENGINEER.
 4. ALL SIDEWALK EDGES SHALL HAVE A 3/4" RADIUS.
 5. CRUSHED SURFACING TOP COURSE MUST BE UNIFORMLY MOISTURE CONDITIONED BEFORE PLACEMENT AND COMPACTED TO A NON-CLUMPING CONDITION.
 6. NO MONOLITHIC JOINTS ARE ALLOWED. SIDEWALKS, CURB & GUTTER, AND DRIVEWAYS SHALL BE POURED SEPARATELY WITH EXPANSION JOINTS PER STANDARD SPECIFICATIONS.
 7. CROSS SLOPE TYPICAL 1.5% BUT SHALL NOT BE STEEPER THAN 2% UNLESS ALTERNATE ACCESSIBLE ROUTE IS PROVIDED.
 8. APPROACHES, WINGS, AND SIDEWALK SPANNING PLANTING STRIPS SHALL MAINTAIN A 6" THICK SECTION.

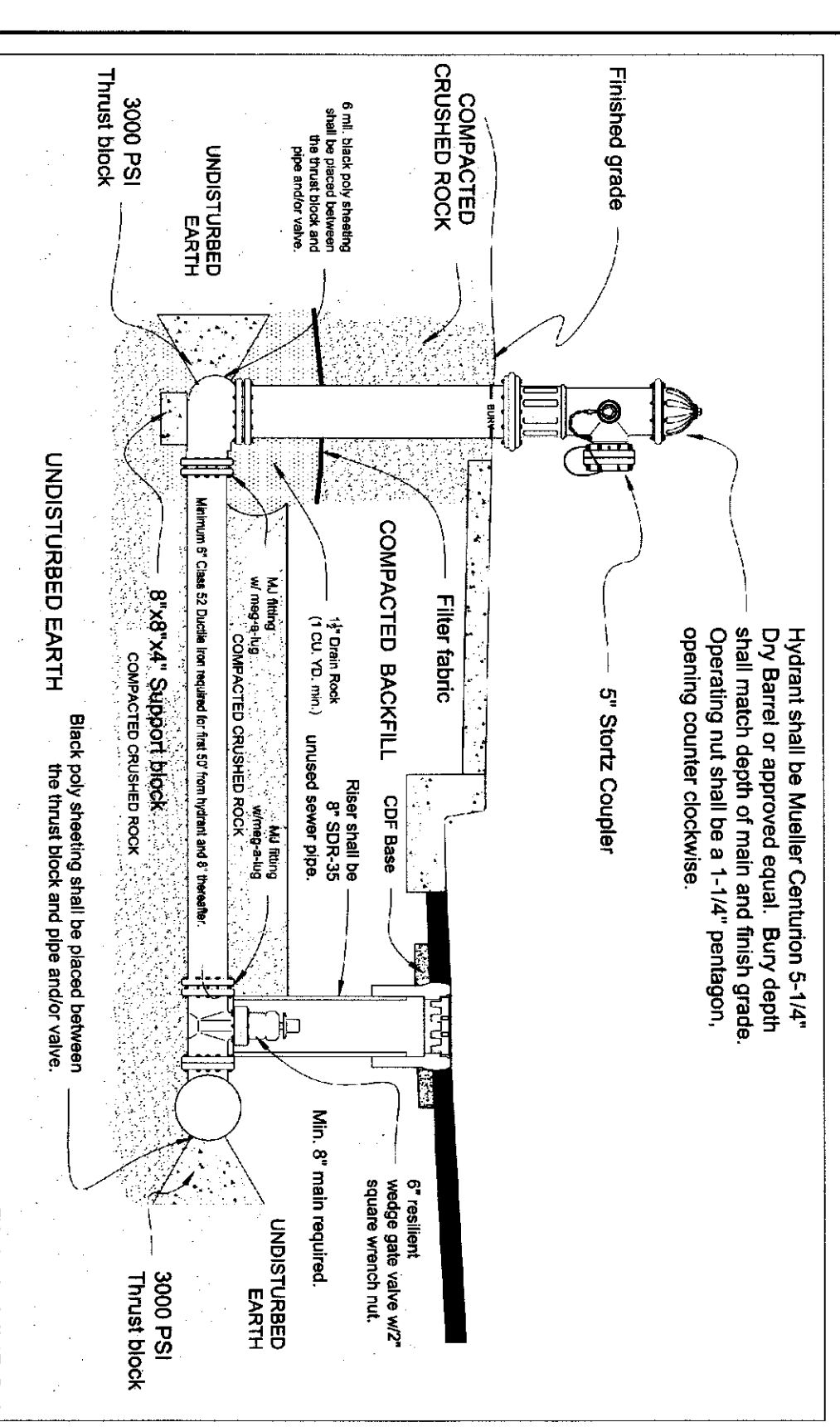
CITY ENGINEER: Robert Gordon, P.E.
LAST REVISION: DECEMBER 2008

RESIDENTIAL DRIVEWAY APPROACH CROSS-SECTION

STANDARD PLAN 710.16

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CITY OF COLLEGE PLACE - STANDARD SPECIFICATIONS



Hydrant shall be Mueller Centurion 5-1/4"

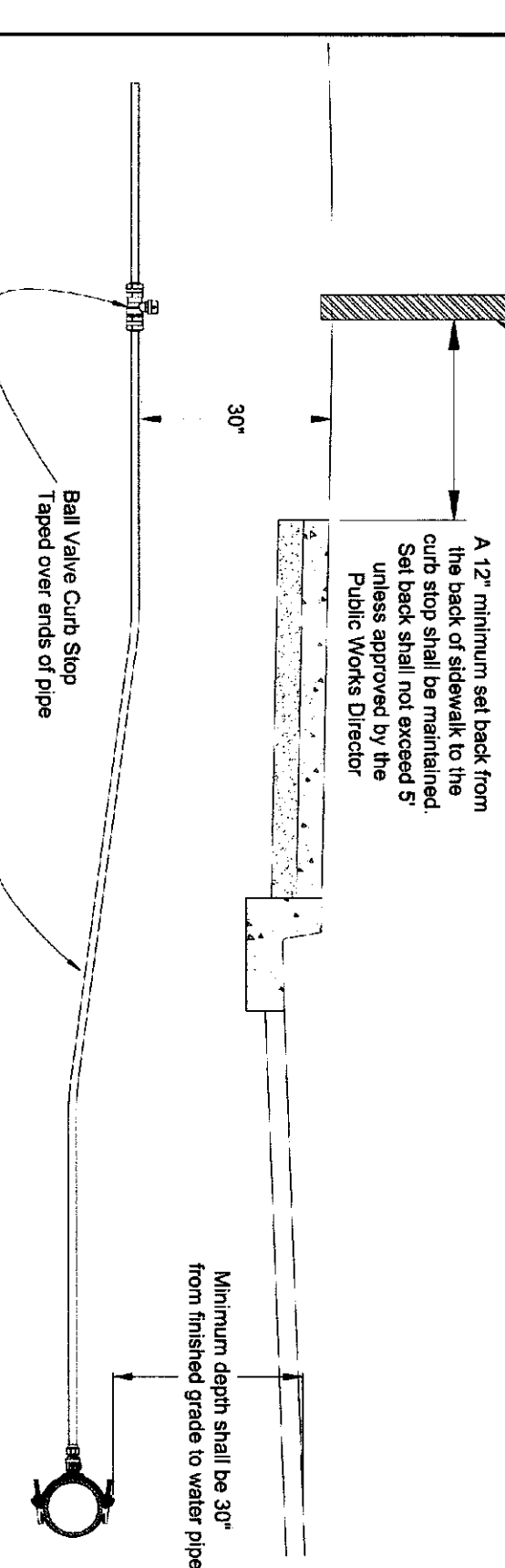
CITY ENGINEER: Robert Gordon, P.E.
LAST REVISION: FEBRUARY 2014

FIRE HYDRANT PLACEMENT PROFILE

STANDARD PLAN 210.02

This drawing is Not To Scale

CITY OF COLLEGE PLACE - STANDARD SPECIFICATIONS



Ball Valve Curb Stop

- NOTES:**
1. Service shall be 12 inches minimum set back from the curb.
 2. Ball valve shall be 12 inches minimum set back from the curb.
 3. Service lines larger than 1" shall be constructed with CRIS polyethylene pipe and 1/2" vesper wts.

CITY ENGINEER: Robert Gordon, P.E.
LAST REVISION: OCTOBER 2013

WATER SERVICE PLACEMENT PROFILE

STANDARD PLAN 210.06

This drawing is Not To Scale

CITY OF COLLEGE PLACE

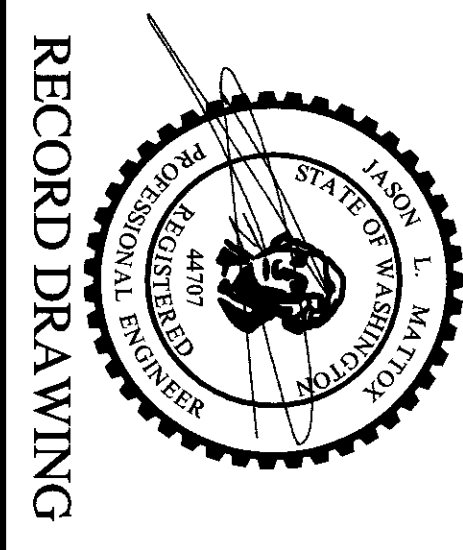
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CITY OF COLLEGE PLACE STANDARD DETAILS FOR:
GARRISON VILLAGE XI
A SUBDIVISION LOCATED IN THE CITY OF COLLEGE PLACE, WASHINGTON

HDJ DESIGN GROUP
engineers | landscape architects | planners | surveyors

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509/547-5129 fax
Internet: www.hdjdg.com



RECORD DRAWING

11 15

DESIGNED: JLM

DRAWN BY: JLM

CAD: JLM

CHECKED: JLM

SCALE: H: N/A, V: N/A

JULY 2016

3945

SHEET

CITY OF COLLEGE PLACE - STANDARD SPECIFICATIONS

- THRUST BLOCKS SHALL BE REQUIRED AT THE FOLLOWING LOCATIONS:
 - ALL CHANGES IN DIRECTION VERTICAL AND HORIZONTAL
 - ALL CHANGES IN SIZE AND LARGER SIZE FOR C/S/D CONDITION
 - AT OTHER LOCATIONS REQUIRED BY THE CITY ENGINEER.
- THRUST BLOCKS SHALL BE SIZED AS REQUIRED BY SOIL CONDITIONS AND DESIGN PRESSURE.
- PLACE CONCRETE AGAINST UNDISTURBED TRENCH WALL.
- CONCRETE SHALL BE 3000 PSI MINIMUM.
- ALL CONCRETE SHALL BE PLACED SO THAT PIPE, FITTINGS, JOINTS, BOLTS & NUTS, ETC. WILL BE ACCESSIBLE FOR REPAIRS.
- PLACE ONE LAYER OF 3 MIL. PLASTIC BETWEEN THE FITTING AND CONCRETE TO FACILITATE FUTURE REMOVAL OF THE THRUST BLOCK IF REQUIRED. FOR BLOCKS THAT WILL BE REMOVED THE PLASTIC SHALL BE 6 MIL. THICK.
- ANCHOR BOLTS SHALL BE 3/4" DIA. GALVANIZED STEEL WITH WEDGED END AND 6" LONG. CONCRETE SHALL BE 3000 PSI MINIMUM.
- ALL THRUST BLOCKS SHALL BE SIZED FOR 150 PSI WATER PRESSURE. (MINIMUM TESTING PRESSURE)
- IF THE REQUIRED BEARING AREA IS LESS THAN 1 SQ. YD. FOOT, A THRUST BLOCK SHALL NOT BE REQUIRED.

DETERMINATION OF THRUST BLOCK AREA

- NOTE: WHEN THRUST BLOCK BEARING AREA IS NOT SPECIFIED IN THE PLANS OR DETERMINED BY THE ENGINEER, THE FOLLOWING PROCEDURE SHALL BE USED TO DETERMINE REQUIRED BEARING AREA:
- DETERMINE THRUST TO THE TYPE OF FITTING OR JOINT AND SIZE OF PIPE. FROM TABLE NO. 1 OR TABLE NO. 2 OF CITY STANDARD PLAN 310.10.
 - DETERMINE BEARING CAPACITY (B) OF SOIL FROM TABLE NO. 1 OF CITY STANDARD PLAN 310.10.
 - DETERMINE REQUIRED BEARING AREA (A) AS FOLLOWS:

$$A = \frac{T}{B}$$
 T = THRUST FACTOR
 B = DESIGN PRESSURE = 175 PSI
 PIPE = 12"

EXAMPLE:
 FROM TABLE NO. 1, T = 41,000 LB.
 FROM TABLE NO. 2, B = 1,000 LB/FT²
 $A = \frac{41,000}{1,000} = 41 \text{ FT}^2$

This drawing is Not To Scale
STANDARD PLAN 210.09

CITY ENGINEER: Robert Gordon, P.E.
 LAST REVISION: JUNE 2007

CITY OF COLLEGE PLACE - STANDARD SPECIFICATIONS

TABLE NO. 1
 THRUST AT FITTINGS IN POUNDS AT 100 PSI OF WATER PRESSURE

PIPE SIZE	90 DEGREE	45 DEGREE	22.5 DEGREE	11.25 DEGREE
4"	1800	2510	1420	720
6"	3600	5020	2840	1440
8"	6600	9300	5040	2550
10"	10750	15000	8240	4170
12"	15310	21900	11720	5940
14"	20770	29850	15910	8060
16"	26880	38010	20590	10430
18"	32985	42235	22995	11655

NOTE: FOR WATER PRESSURE DIFFERENT THAN 100 PSI, MULTIPLY THRUST FOUND IN TABLE NO. 1 BY REQUIRED PROPORTION.
 EXAMPLE: DESIGN PRESSURE = 175. MULTIPLY VALUE IN TABLE BY 1.75

TABLE NO. 2
 SAFE BEARING LOADS PER SQ. FT.

SOIL	SAFE BEARING LOADS PER SQ. FT.
SOFT CLAY	500
SILT	1000
SAND	2000
SAND & GRAVEL	3000
SAND GRAVEL, GEMENTED WITH CLAY	4000
HARD CLAY	4000

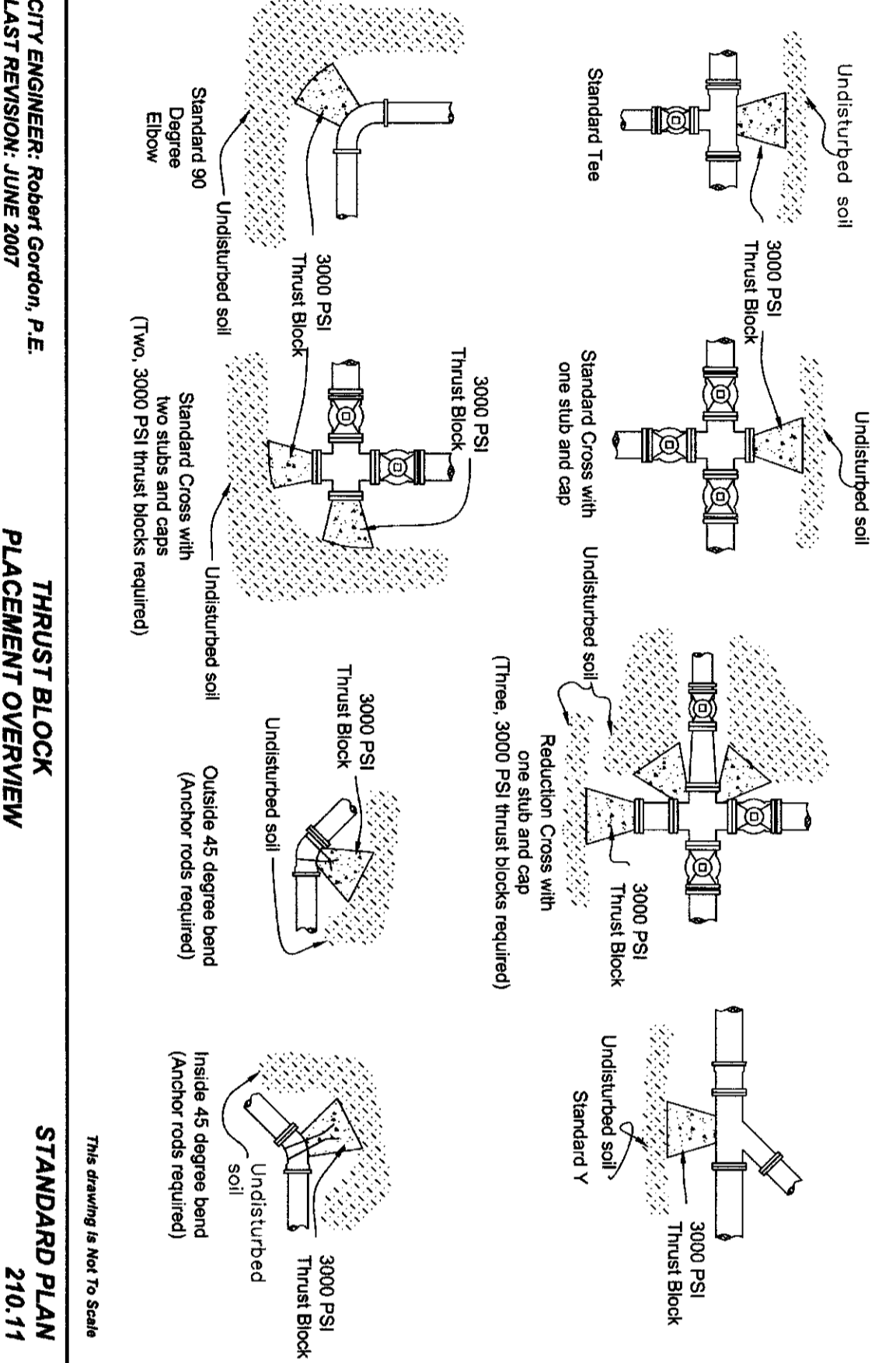
TABLE NO. 3
 SIDE THRUST PER 100 LB/SQ. IN. PRESSURE PER DEGREE OF DEFLECTION

PIPE SIZE	PIPE SIZE	PIPE SIZE	PIPE SIZE	PIPE SIZE
4"	N/A	14"	317	
6"	N/A	16"	498	
8"	N/A	18"	685	
10"	N/A	20"	790	
12"	218	24"	1180	

THRUST BLOCK CALCULATION TABLES
STANDARD PLAN 210.10

CITY ENGINEER: Robert Gordon, P.E.
 LAST REVISION: JUNE 2007

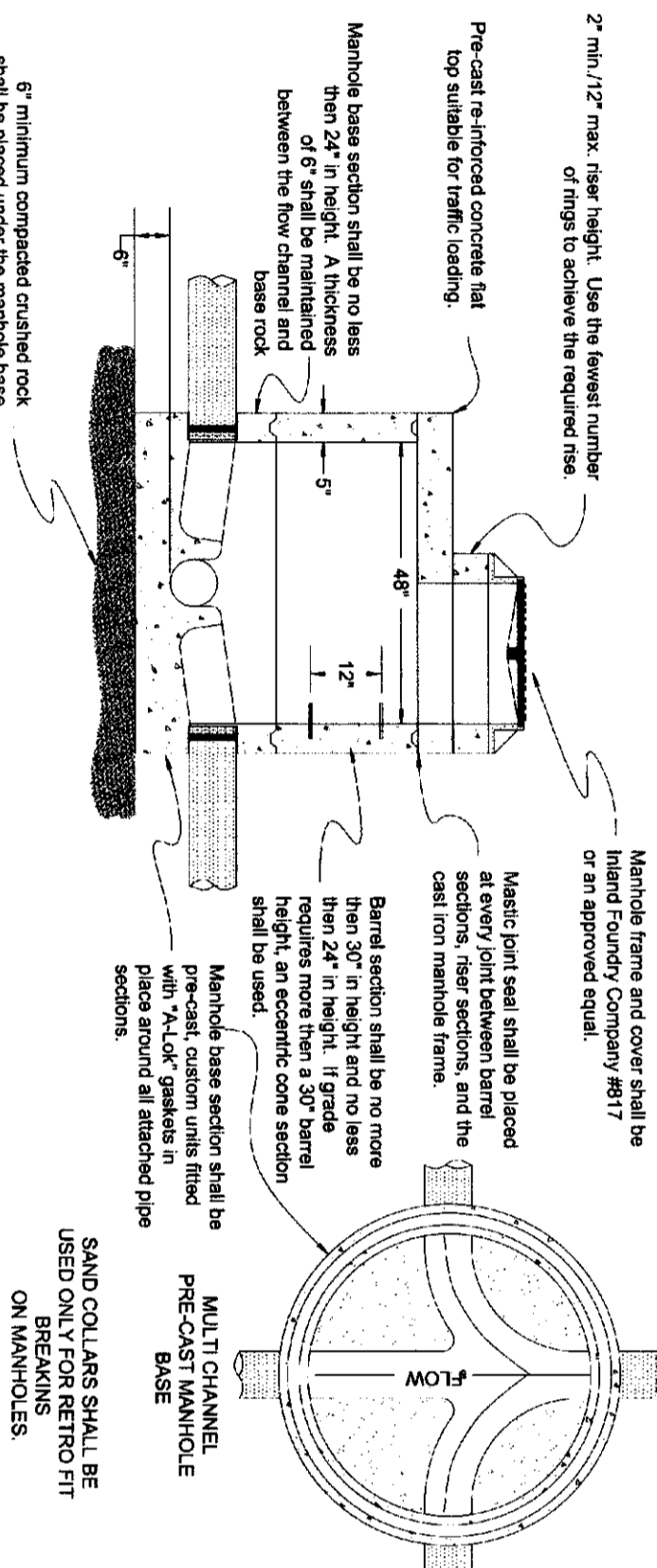
CITY OF COLLEGE PLACE - STANDARD SPECIFICATIONS



CITY ENGINEER: Robert Gordon, P.E.
 LAST REVISION: JUNE 2007
THRUST BLOCK PLACEMENT OVERVIEW
STANDARD PLAN 210.11

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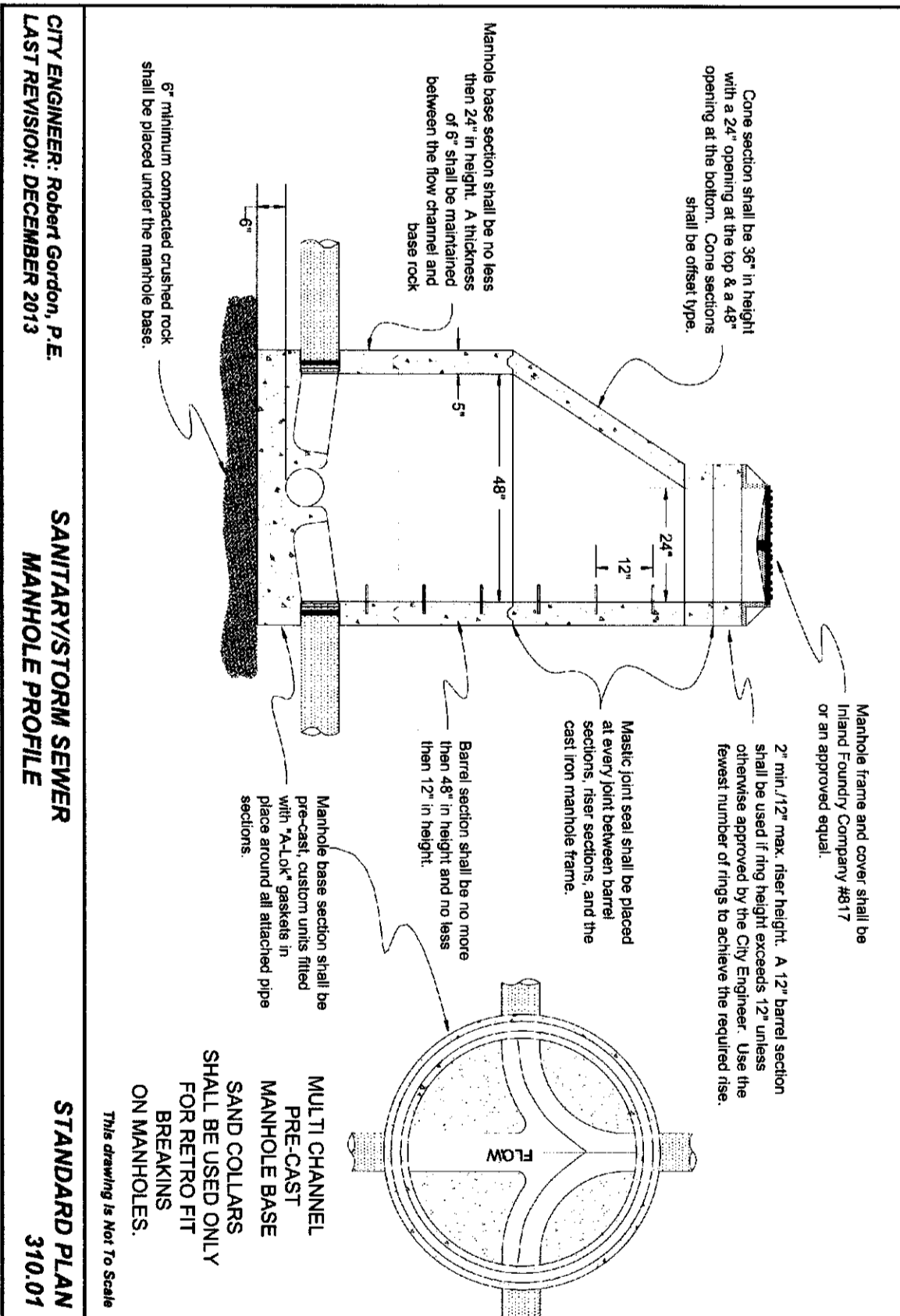
CITY OF COLLEGE PLACE - STANDARD SPECIFICATIONS



CITY ENGINEER: Robert Gordon, P.E.
 LAST REVISION: DECEMBER 2013
SANITARY SEWER MANHOLE PROFILE (FLAT TOP STYLE)
STANDARD PLAN 310.02

This drawing is Not To Scale

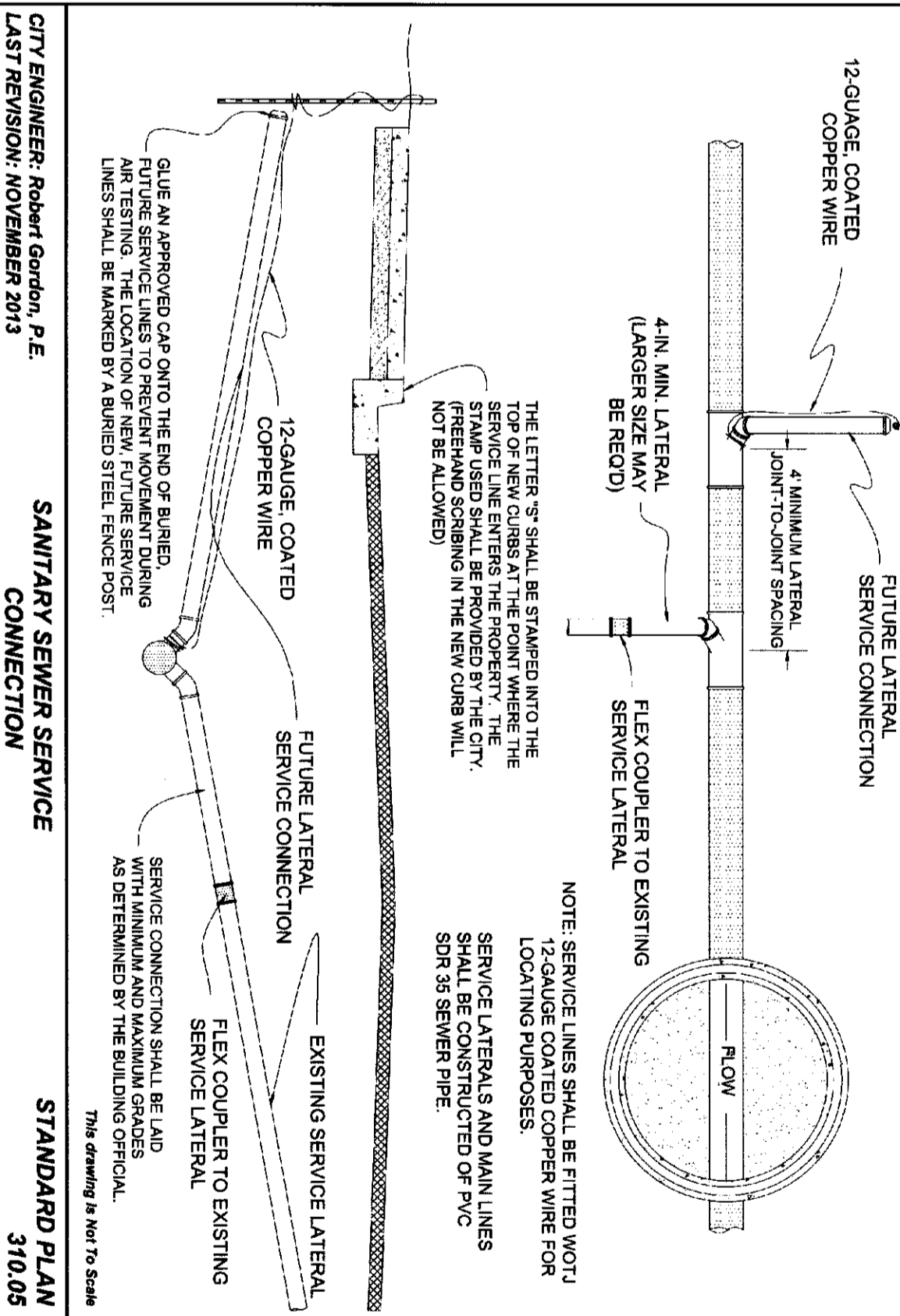
CITY OF COLLEGE PLACE - STANDARD SPECIFICATIONS



CITY ENGINEER: Robert Gordon, P.E.
 LAST REVISION: DECEMBER 2013
SANITARY/STORM SEWER MANHOLE PROFILE
STANDARD PLAN 310.07

This drawing is Not To Scale

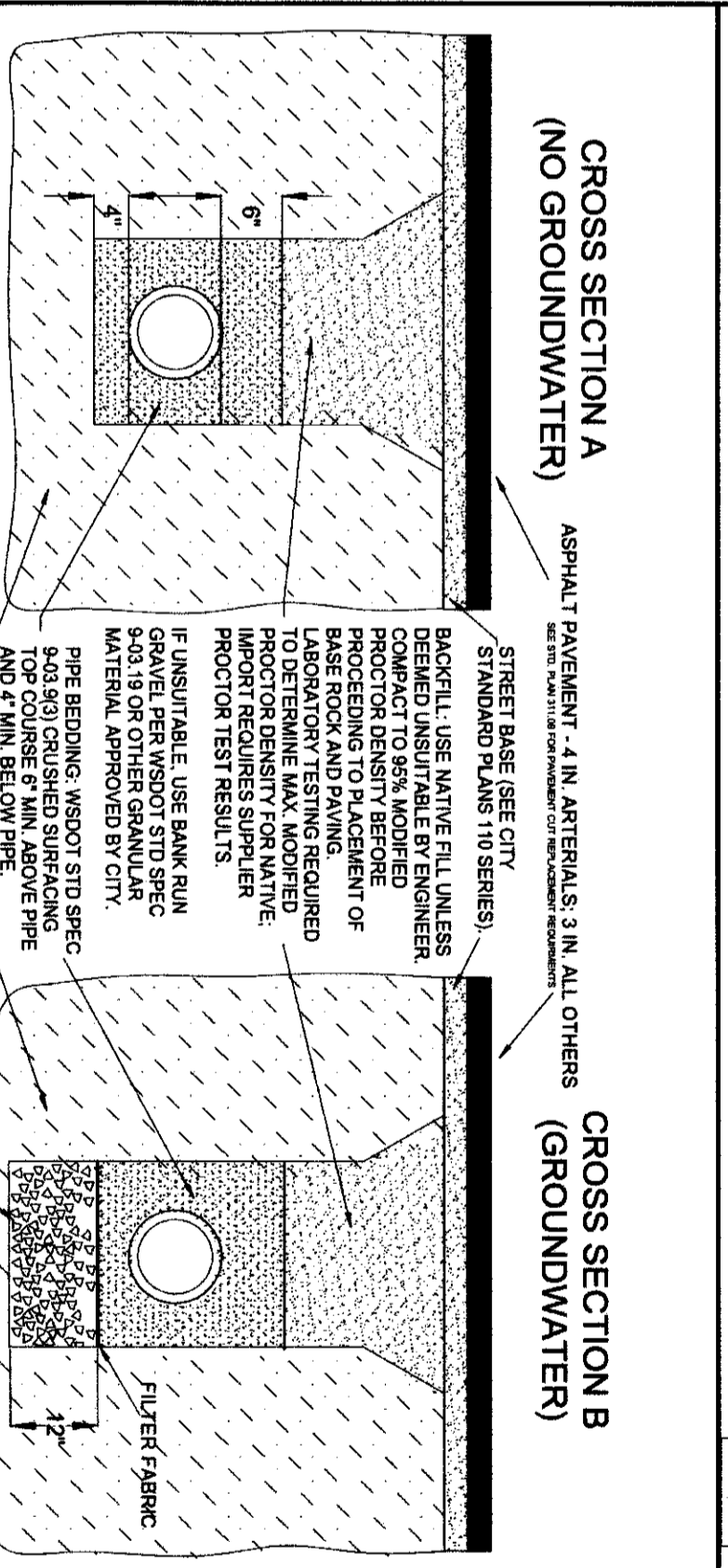
CITY OF COLLEGE PLACE - STANDARD SPECIFICATIONS



CITY ENGINEER: Robert Gordon, P.E.
 LAST REVISION: NOVEMBER 2013
SANITARY SEWER SERVICE CONNECTION
STANDARD PLAN 310.05

This drawing is Not To Scale

CITY OF COLLEGE PLACE - STANDARD SPECIFICATIONS



CITY ENGINEER: Robert Gordon, P.E.
 LAST REVISION: JANUARY 2015
STANDARD TRENCH DETAILS (WATER, SANITARY & STORM SEWER)
STANDARD PLAN 310.07

This drawing is Not To Scale

CITY OF COLLEGE PLACE
 Approved by City of College Place
 Date

Utility Locate
 Call 811
 2 Business Days
 Before Digging

DESIGNED: JLM
 DRAWN BY: CJD
 CHECKED: JLM
 SCALE: H, N/A
 V, N/A
 JULY 2016
 3645

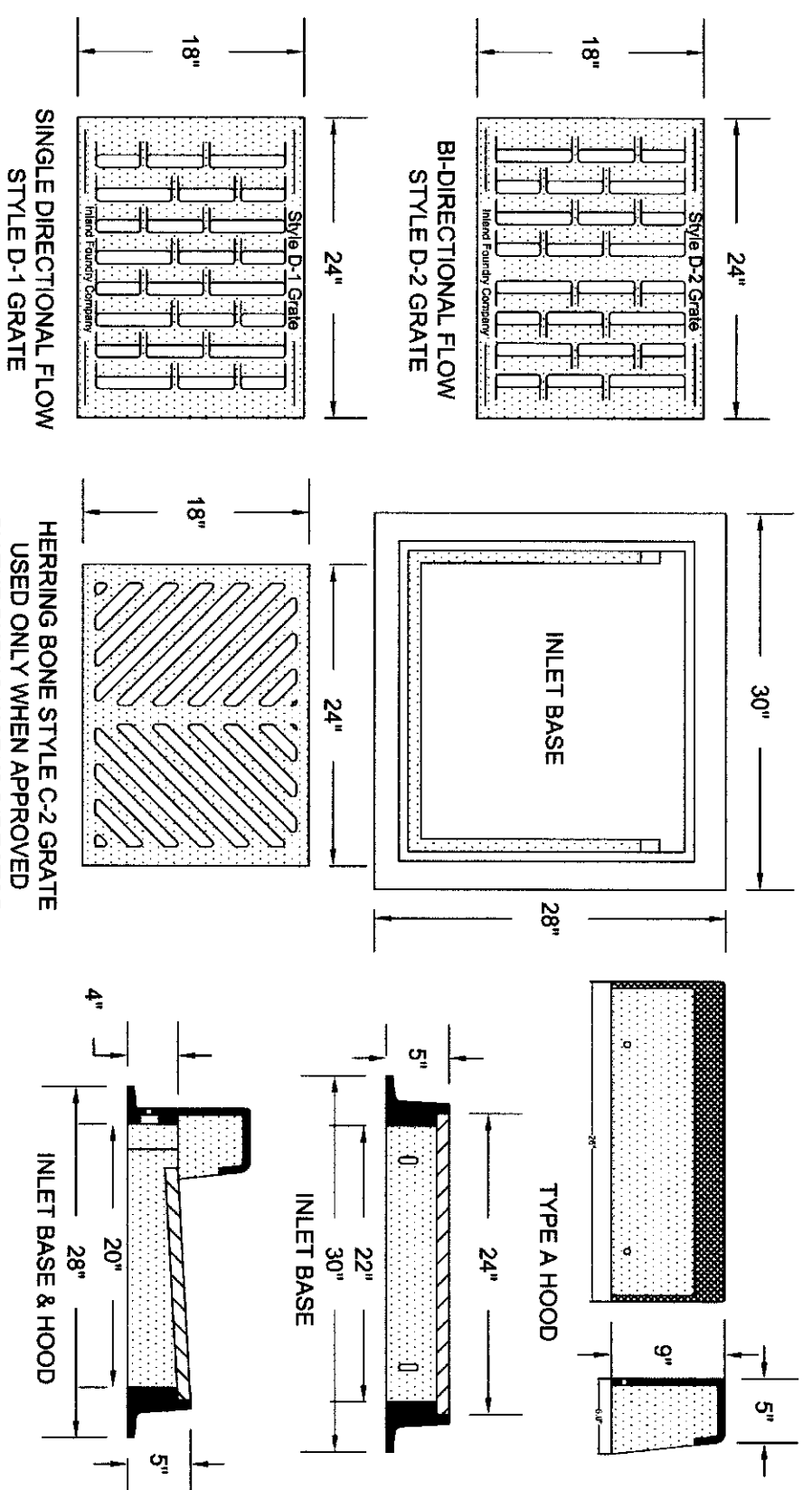
RECORD DRAWING
 12 15

CITY OF COLLEGE PLACE STANDARD DETAILS FOR:
GARRISON VILLAGE XI
 A SUBDIVISION LOCATED IN THE CITY OF COLLEGE PLACE, WASHINGTON



6115 Burden Blvd, Suite E
 Pasco, WA 99301-8930
 509/547-5119
 509/695-3488
 509/547-5129 fax
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CITY OF COLLEGE PLACE - STANDARD SPECIFICATIONS



INLAND FOUNDRY COMPANY THROUGH CURB INLET MODEL 571

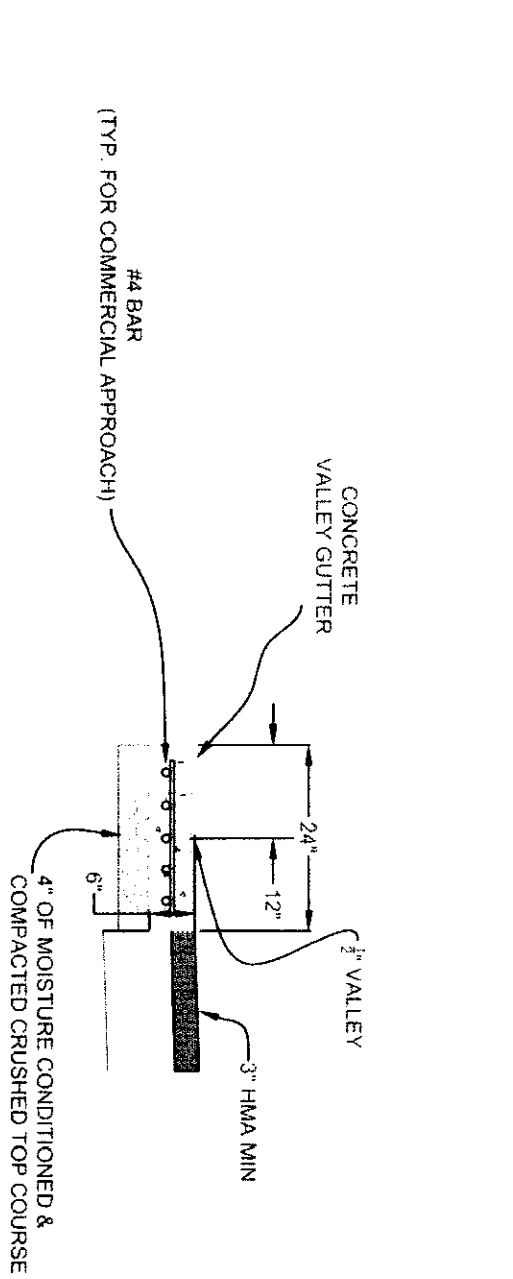
CITY ENGINEER: Robert Gordon, P.E.
LAST REVISION: JUNE 2007

CURB INLET FRAME GRATE & HOOD DETAIL

STANDARD PLAN 311.01

This drawing is tied to Scale

CITY OF COLLEGE PLACE - STANDARD SPECIFICATIONS



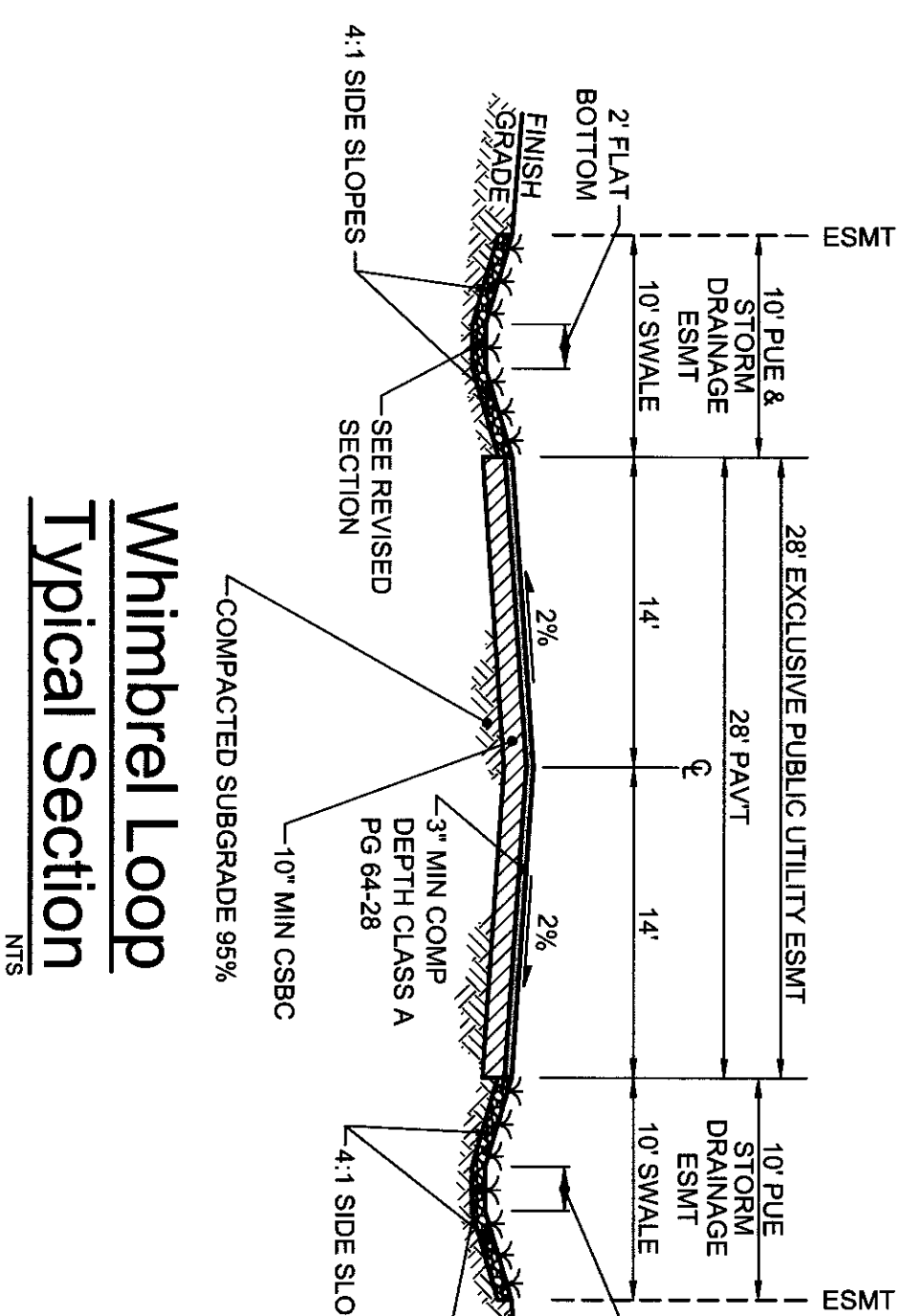
- NOTES
1. VALLEY GUTTERS SUBJECTED TO COMMERCIAL OR HEAVY VEHICLE LOADS SHALL HAVE REINFORCEMENT MATERIAL PLACED WITHIN THE CURB/GUTTER AND SIDEWALK IN THE FOLLOWING MANNER:
 - .. VALLEY GUTTERS: #4 BARS PLACED PARALLEL TO THE STREET WITH #4 CROSS TIES @ 24" O.C.
 - .. SIDEWALK: #4 BARS @ 12" O.C. EACH WAY.
 2. ALL REINFORCEMENT WORK SHALL BE SAW CUT SMOOTH AND EVEN AT THE CURB, SIDEWALK, AND GUTTER EDGES.
 3. ASPHALT SHALL BE SAW CUT BACK 12" AND HAVE A SMOOTH EDGE BEFORE BEING PATCHED. SEE DETAIL STANDARD110.09 & 110.10
 4. NO MONOLITHIC POURS ARE ALLOWED. SIDEWALKS, CURB & GUTTER AND DRIVEWAYS SHALL BE POURED SEPARATELY WITH EXPANSION JOINTS PER STANDARD SPECIFICATIONS.
 5. CRUSHED SURFACING TOP COURSE MUST BE MOISTURE CONDITIONED BEFORE PLACEMENT AND COMPACTED TO A NON-WELDED CONDITION.
 6. VALLEY GUTTERS SHALL NOT BE PLACED WITHIN MARKED OR UNMARKED CROSSWALK ZONES.

This drawing is tied to Scale

CITY ENGINEER: Robert Gordon, P.E.
LAST REVISION: DECEMBER 2008

VALLEY GUTTER

STANDARD PLAN 110.42

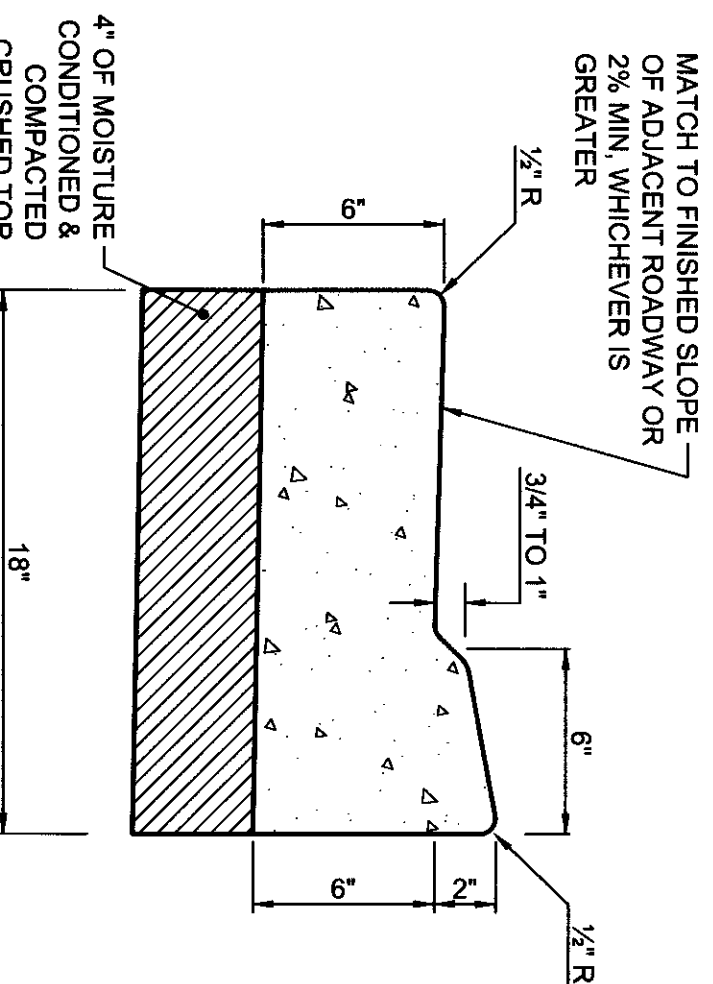
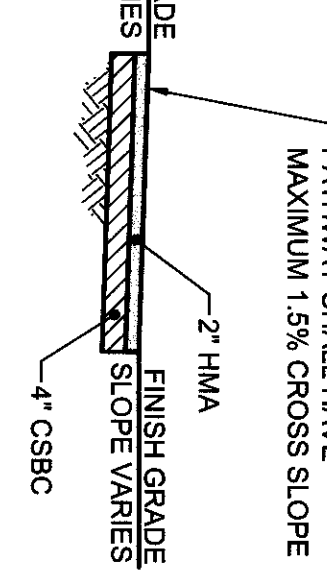


Whimbrel Loop Typical Section

NTS

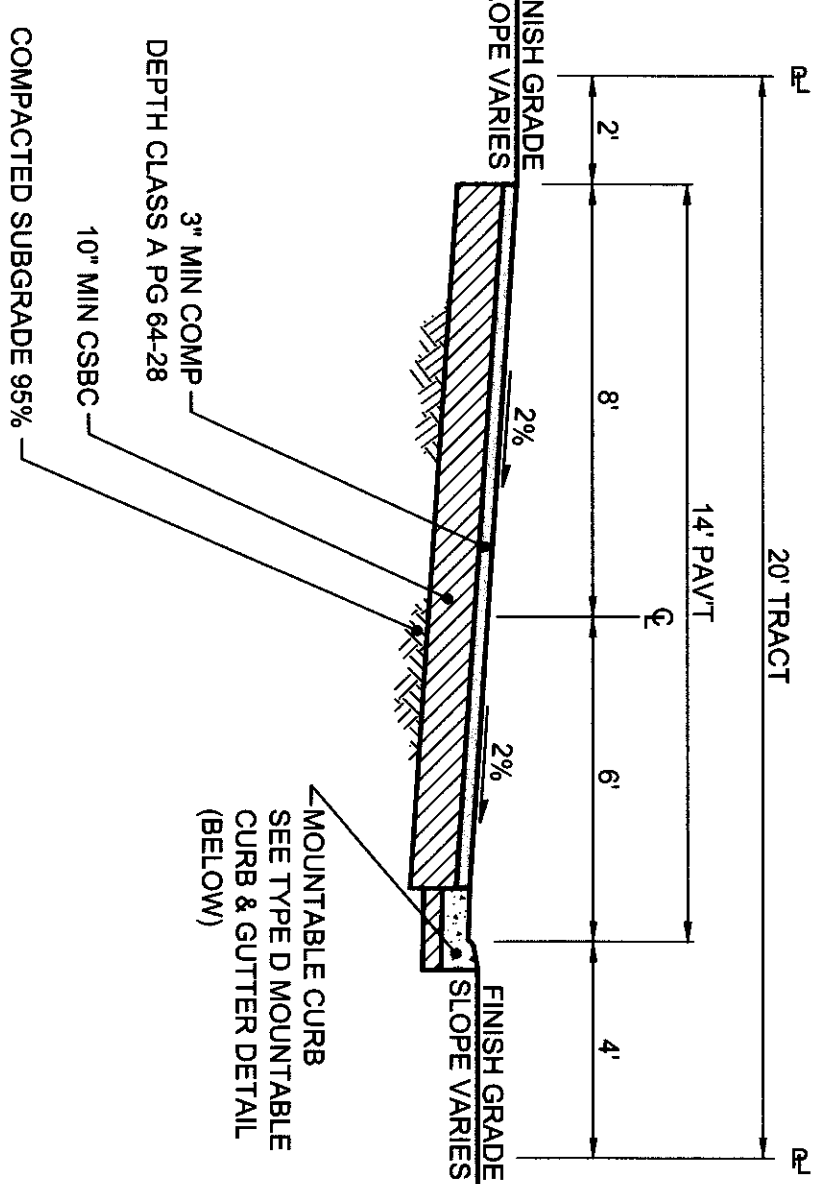
HMA Pathway Typical Section

NTS



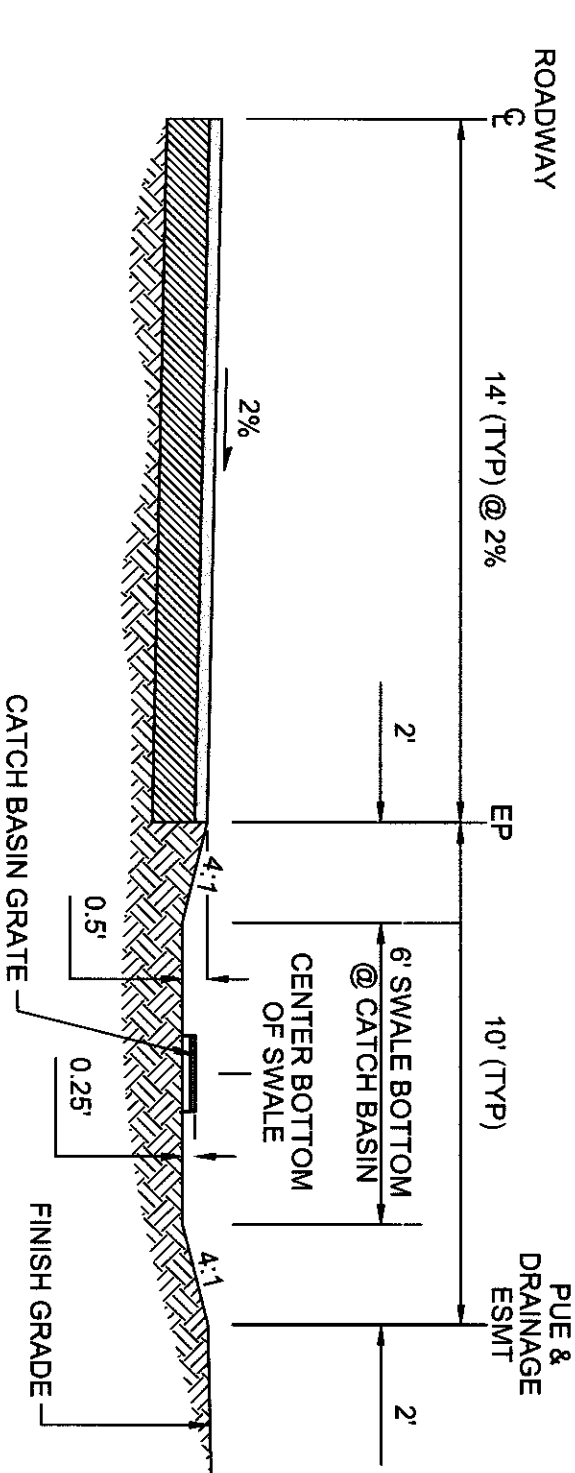
Type D Mountable Curb & Gutter (Alley Section Only)

NTS



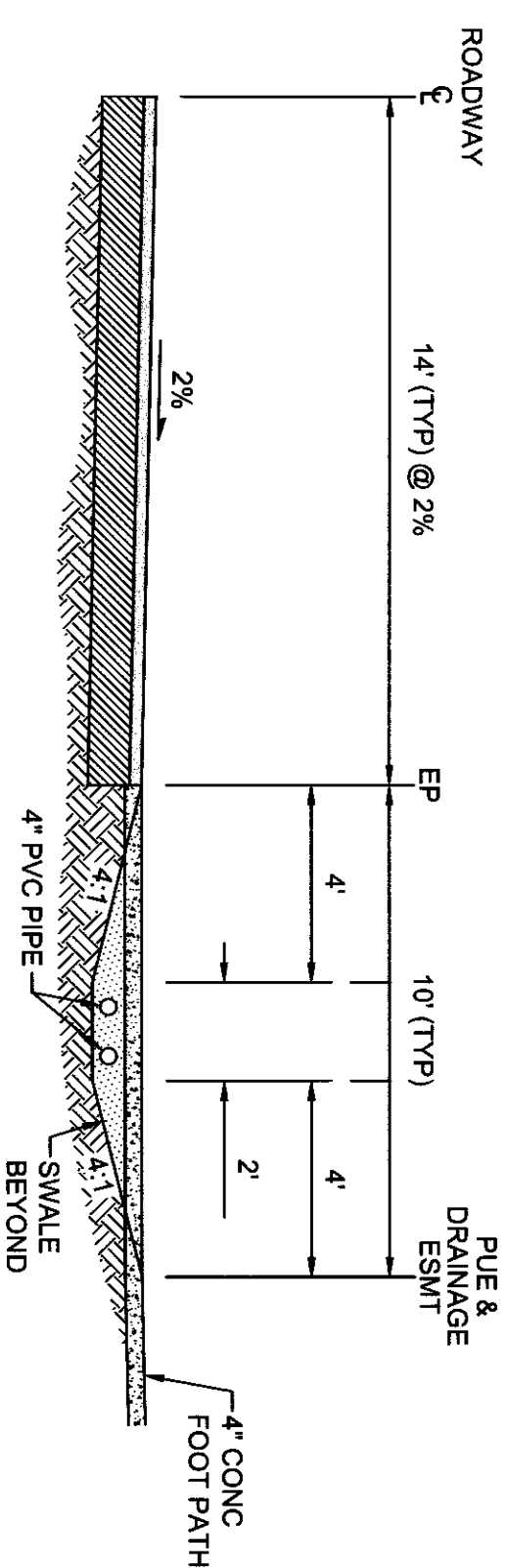
Alley Typical Section

NTS



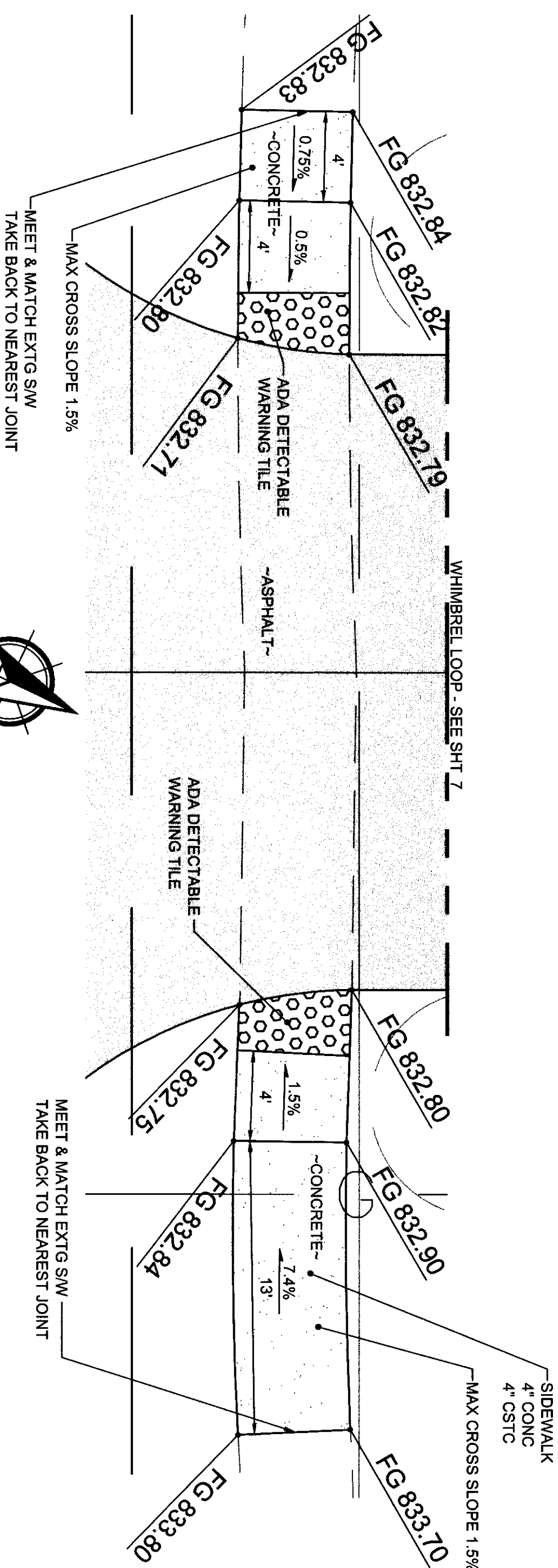
UPDATED ROADSIDE SWALE TYPICAL SECTION

NTS



ROADSIDE SWALE WITH FOOT PATH SECTION

NTS

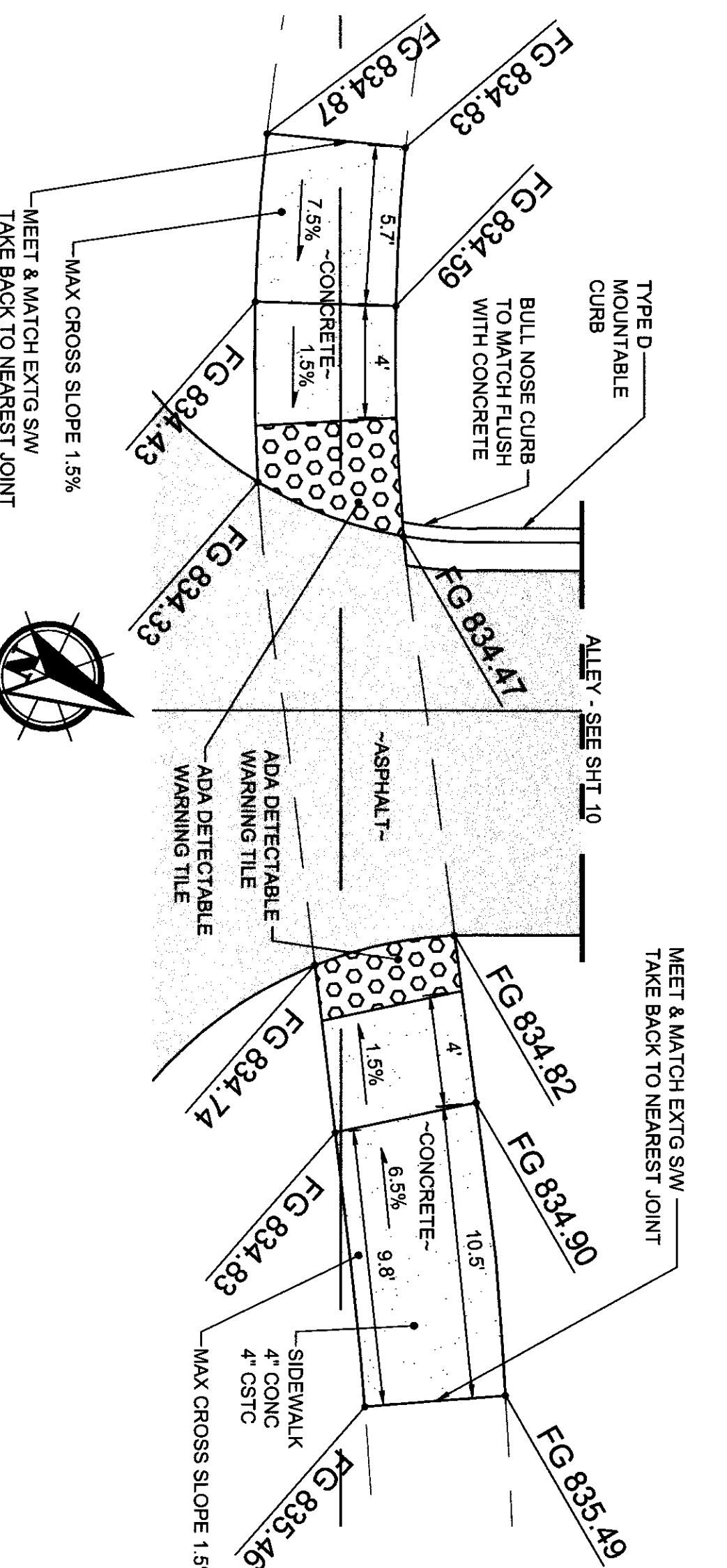


ADA Ramps - Whimbrel Loop

NTS

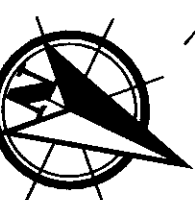


Scale 1" = 5'



ADA Ramps - Alley Entrance

NTS

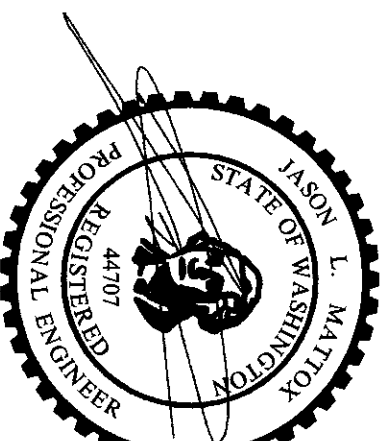


Scale 1" = 5'



CITY OF COLLEGE PLACE	
Approved by City of College Place	Date

Utility Locate
Call 811
2 Business Days
Before Digging



RECORD DRAWING

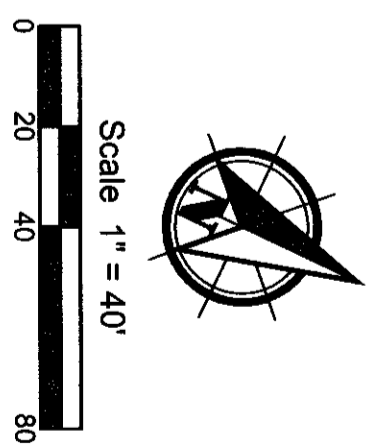
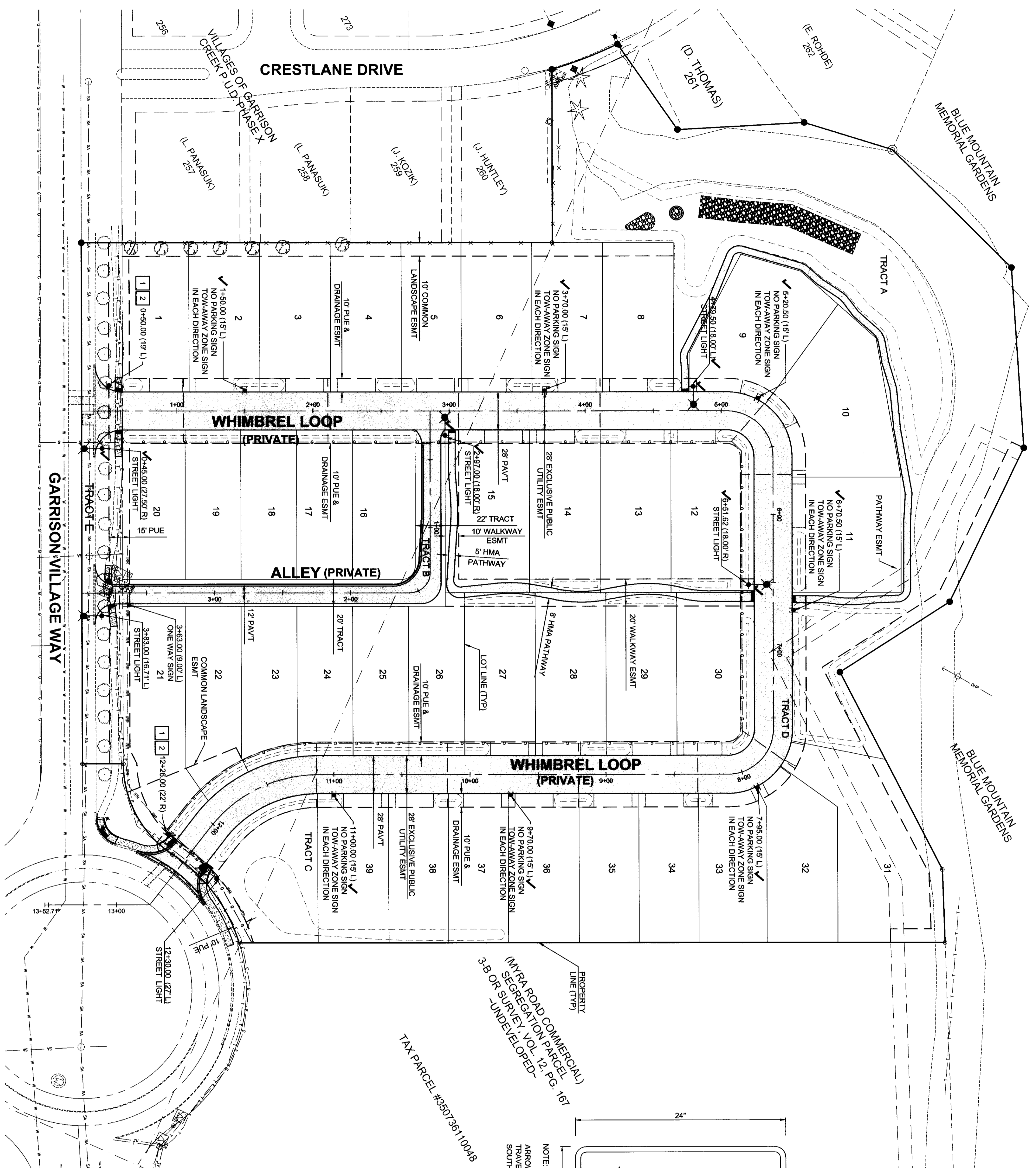
MISCELLANEOUS DETAILS FOR:

GARRISON VILLAGE XI
A SUBDIVISION LOCATED IN THE CITY OF COLLEGE PLACE, WASHINGTON

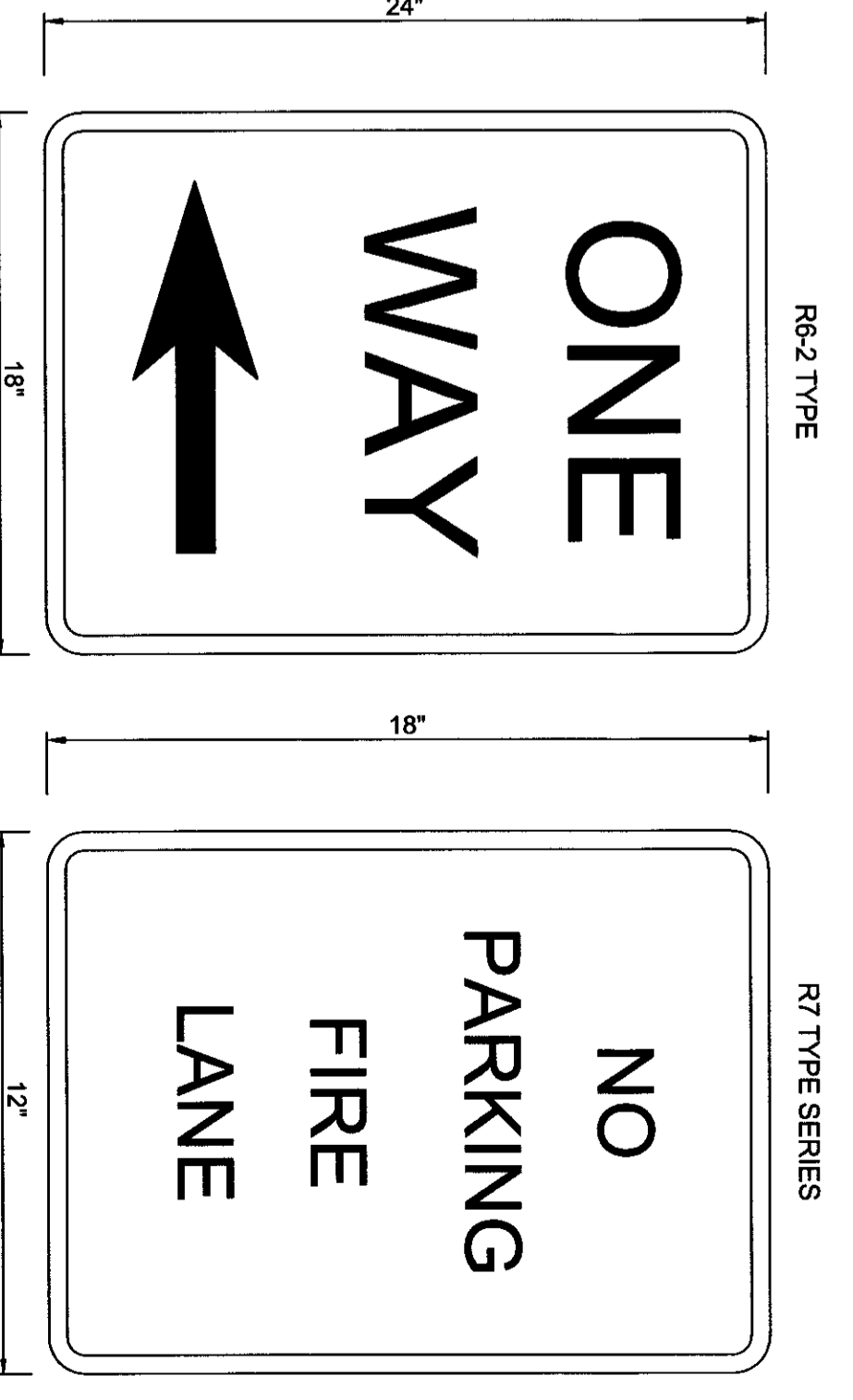


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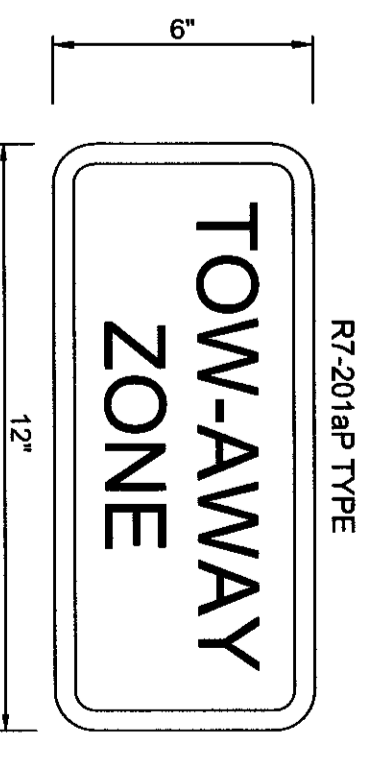
DESIGNER: JLM	CHECKED: JLM
DRAWN BY: CJD	SCALE: H. N. V.A.
CITY OF COLLEGE PLACE	V. N.A.
DATE: JULY 2016	3645
SHEET 13	15



#	MUTCD SIGN CODE	MESSAGE	REMARKS
1	R1-1	STOP	30" STOP
2	D3-1 D3-1	WHIMBREL LOOP (PRIVATE) GARRISON VILLAGE WAY	TWO SIDED SIGNS TWO SIDED SIGNS



NOTE:
ARROW TO BE IN DIRECTION OF TRAVEL.
TRAVEL IN ALLEY SHALL BE FROM SOUTHEAST TO NORTHWEST.



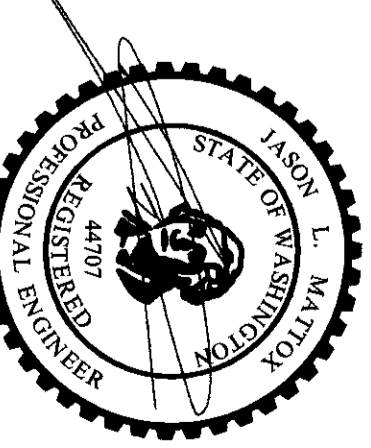
LEGEND	
☼	STREET SIGN
☼	STREET LIGHT

NOTE:
EXCEPT FOR CROSSINGS & STREET LIGHTS, ALL FRANCHISE UTILITY FACILITIES ARE TO BE SITUATED IN THE P.U.E.

CITY OF COLLEGE PLACE

Approved by City of College Place _____ Date _____

Utility Locate
Call 811
2 Business Days
Before Digging



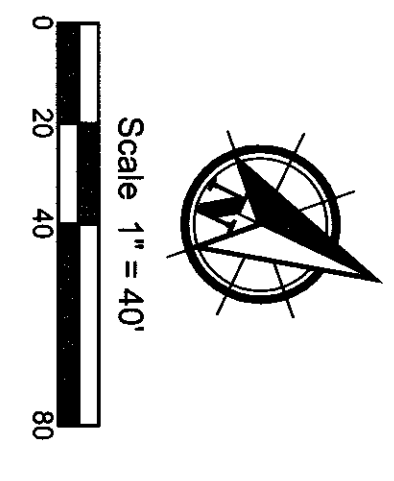
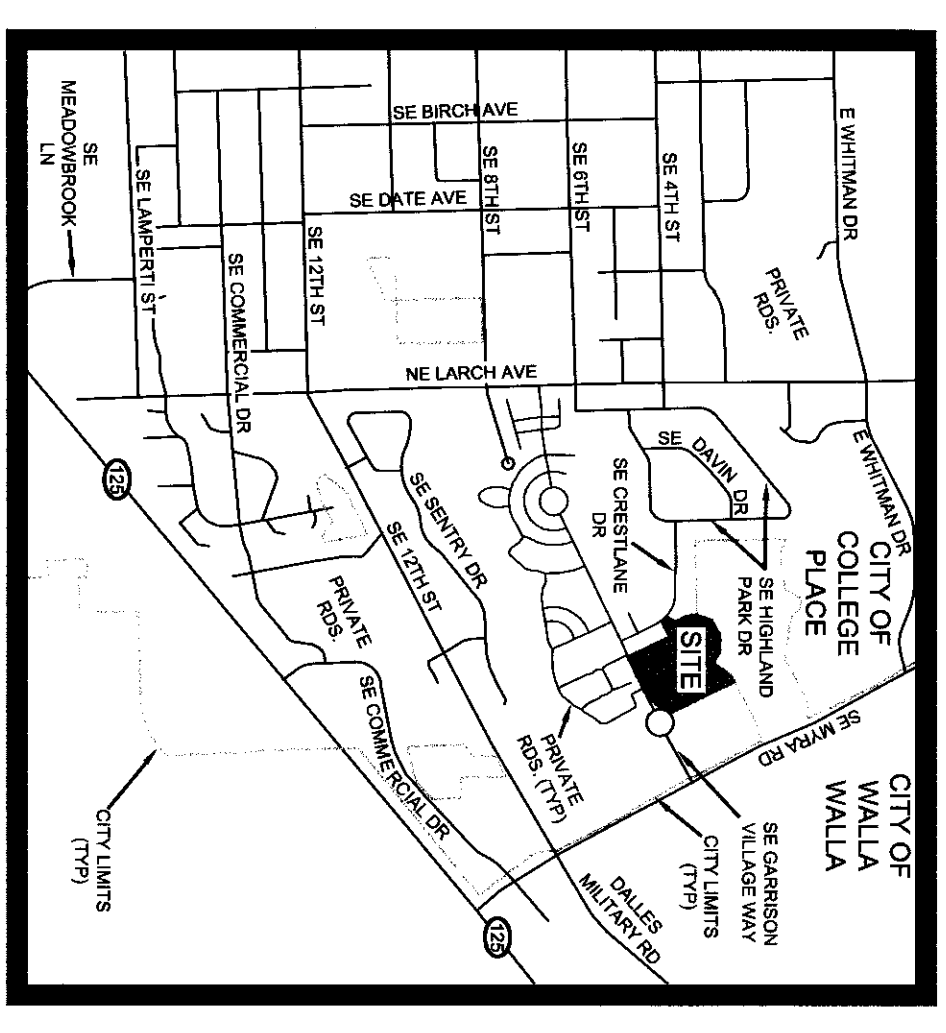
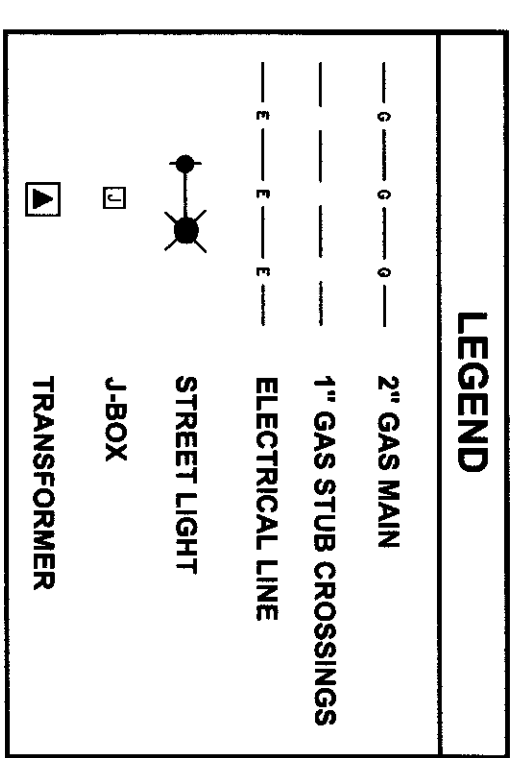
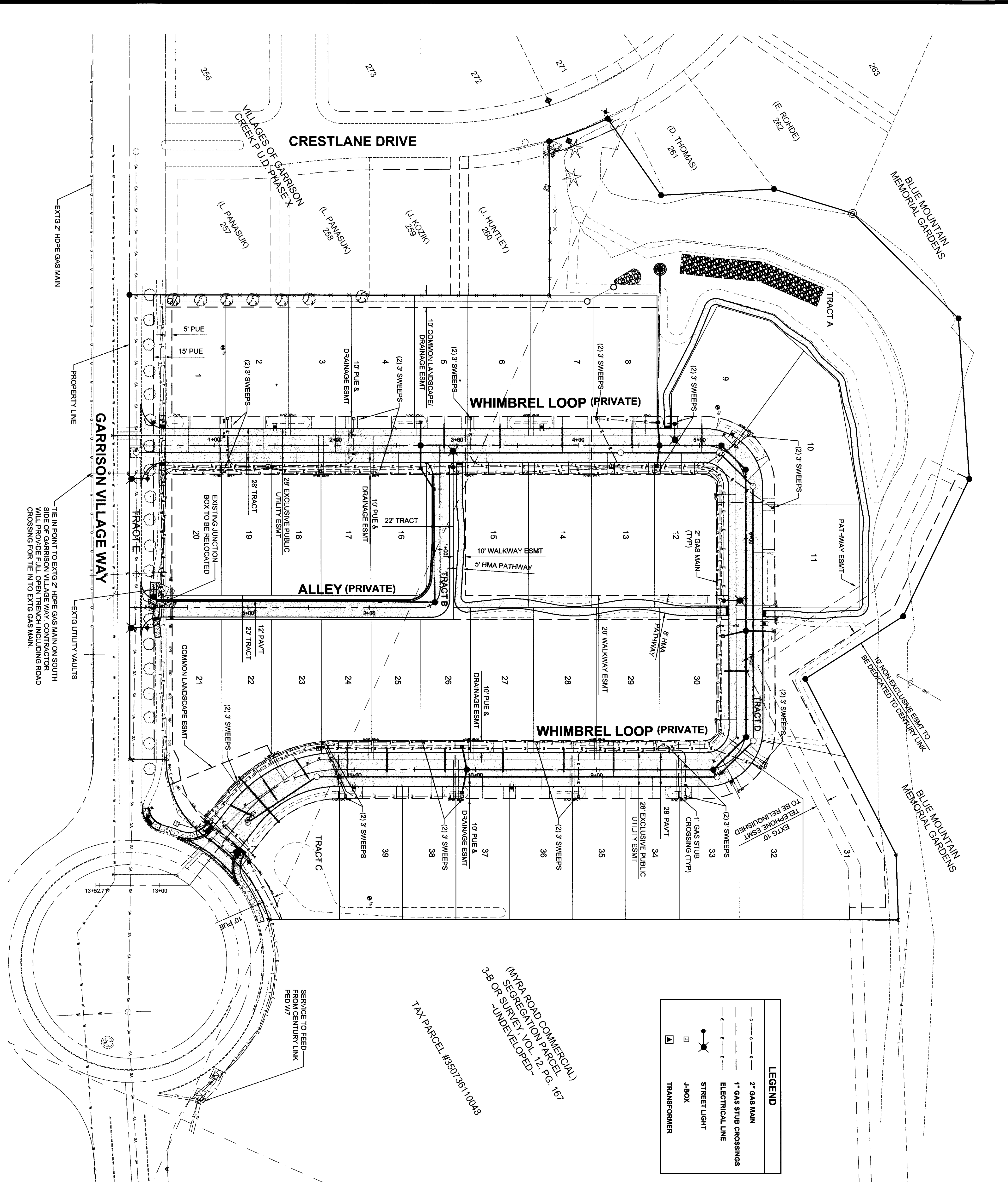
RECORD DRAWING

SIGNING STRIPING & ILLUMINATION PLAN FOR:
GARRISON VILLAGE XI
A SUBDIVISION LOCATED IN THE CITY OF COLLEGE PLACE, WASHINGTON



6115 Burden Blvd, Suite E
Pasco, WA 99301-8930
509/547-5119
306/695-3488
509/547-5129 fax
Internet: www.hojdesigngroup.com

DESIGNED: JLM	CHECKED: JLM
DRAWN BY: JLM	SCALE: H: 1" = 40'
	V: N/A
	JULY 2016
	3945
SHEET	
14	15



(MYRA ROAD COMMERCIAL SEGREGATION PARCEL 3-B OR SURVEY VOL. 12, PG. 107)
 TAX PARCEL #3507367-10048

Utilities	
Pacific Power	Date
Columbia REA	Date
Cascade Natural Gas	Date
CenturyLink	Date
Charter Communications	Date
Pocket-Net	Date
NO/Not	Date

- NOTE:
- ELECTRICAL UTILITY PLANS FOR INFORMATIONAL PURPOSES ONLY. REFER TO COLUMBIA REA PLAN FOR VAULT, TRANSFORMER, J-BOX, AND CONDUIT SIZING.
 - EXCEPT FOR CROSSINGS & STREET LIGHTS, ALL FRANCHISE UTILITY FACILITIES ARE TO BE SITUATED IN THE P.U.E. OUTSIDE OF THE RIGHT OF WAY.
 - CENTURY LINK TO FOLLOW POWER LAYOUT WITH 2" CONDUIT WITH TWO (2) 3" SWEEPS AT EVERY J-BOX.
 - CENTURY LINK SWEEPS NEED TO BE AT LEAST 3' FROM POWER VAULT, NOT IN FRONT OR BEHIND.

CITY OF COLLEGE PLACE

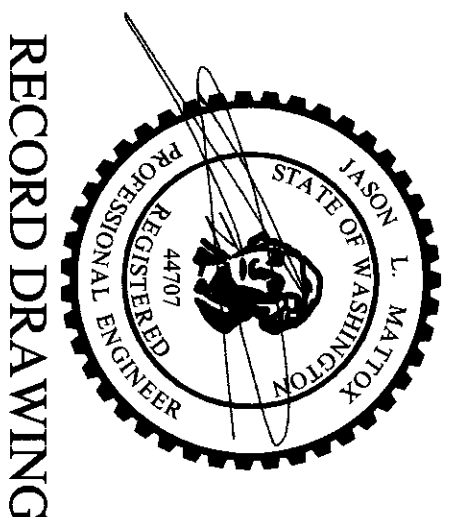
DESIGNED BY: JLM

DRAWN BY: JLM

CHECKED BY: JLM

DATE: _____

Utility Locate
 Call 811
 2 Business Days
 Before Digging



SITE UTILITY PLAN FOR:
GARRISON VILLAGE XI
 A SUBDIVISION LOCATED IN THE CITY OF COLLEGE PLACE, WASHINGTON



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