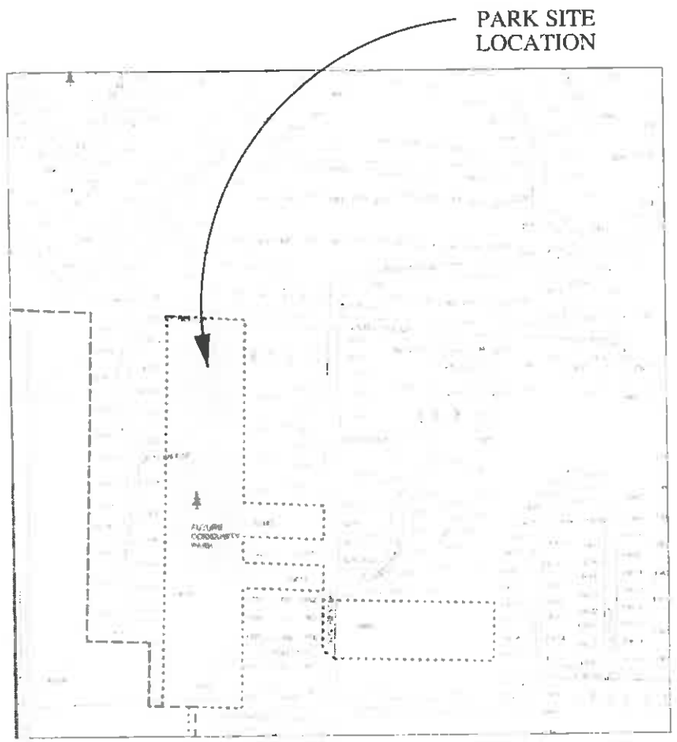
Kodiak Pacific Construction
As-Built Drawings

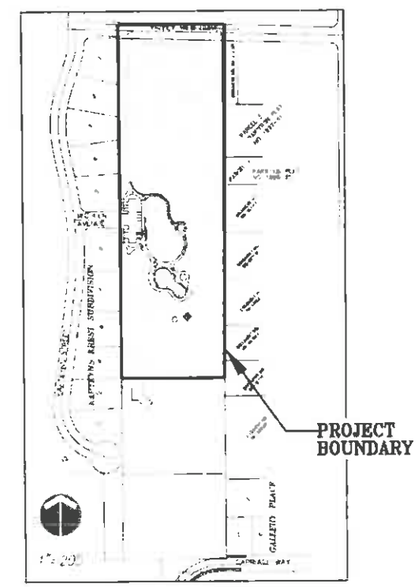
DEVELOPMENT PLAN FOR
MARYLHURST PARK - PHASE I
WEST LINN, OREGON
BID DRAWINGS



VICINITY MAP

SHEET INDEX

L 0.01	COVER SHEET
L 0.02	EXISTING CONDITIONS
L 0.03	OVERALL SITE/AREA PLAN
L 1.01	LAYOUT PLAN
L 2.01	ROUGH GRADING PLAN - AREA 1
L 2.02	ROUGH GRADING PLAN - AREA 2
L 2.03	FINE GRADING PLAN
L 3.01	PROPOSED PLANTING LAYOUT
L 4.01	STORM DRAIN PLAN - AREA 1
L 4.02	STORM DRAIN PLAN - AREA 2
L 4.03	SANITARY SEWER PLAN - AREA 2
L 4.04	WATER PLAN - AREA 2
L 5.01	CONSTRUCTION DETAILS
L 5.02	CONSTRUCTION DETAILS
L 5.03	CONSTRUCTION DETAILS
L 5.04	CONSTRUCTION DETAILS
L 5.05	IRRIGATION DETAILS
L 5.06	IRRIGATION DETAILS
L 5.07	CIVIL DETAILS - SANITARY SEWER AND STORM DRAIN
L 5.08	CIVIL DETAILS - STORM DRAIN
L 5.09	CIVIL DETAILS - WATER



PROJECT MAP

OWNER

Name:	City of West Linn Parks & Recreation
Contact:	Ken Worcester
Phone:	(503) 557-4700
Fax:	(503) 656-4106

CIVIL ENGINEER/LANDSCAPE ARCHITECT/PLANNER

Name:	Otak Incorporated	Otak Incorporated	Otak Incorporated
Contact:	Darrin Stairs Civil Engineer	David Haynes Landscape Architect	Jerry Offer Planner
Phone:	(503) 699-4506	(360) 906-6782	(503) 699-2444
Fax:	(503) 635-5395	(360) 737-9651	(503) 635-5395

Bid Drawings - July 2, 2010

MARYLHURST PARK PHASE I

COVER SHEET

otak Incorporated

L0.01

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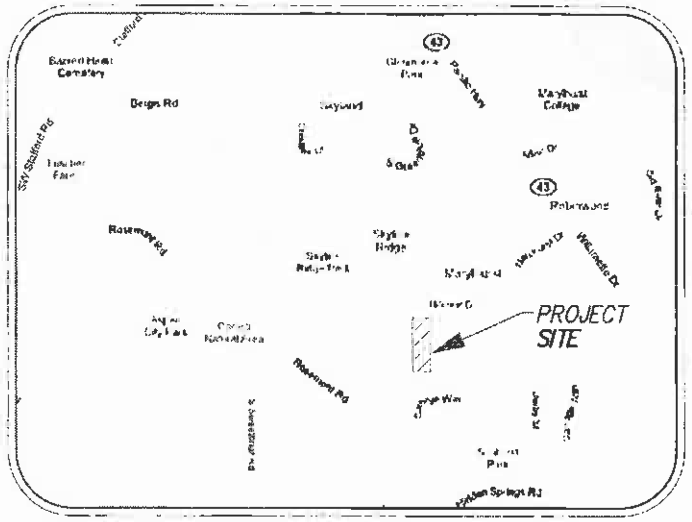
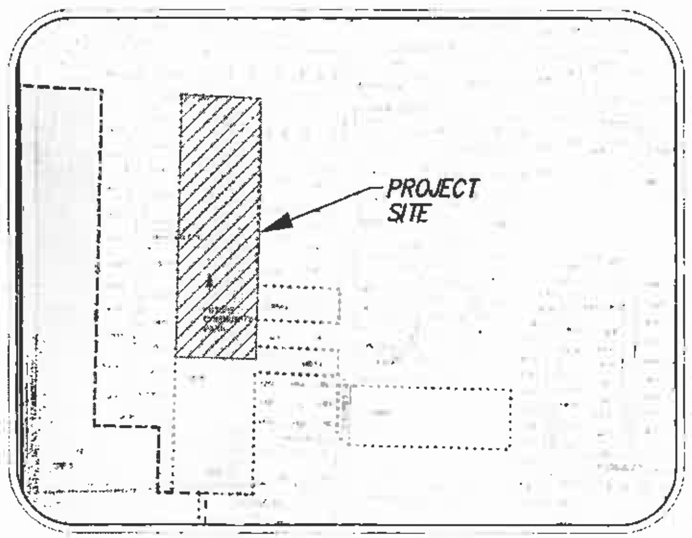
EROSION AND SEDIMENT CONTROL PLANS



VICINITY MAP
NOT TO SCALE



SITE MAP
NOT TO SCALE

PROJECT LOCATION
NEAR THE INTERSECTION OF
VALLEY VIEW DRIVE AND KAPTEYNS STREET,
WEST LINN, OREGON
LATITUDE = 45°23'07" N, LONGITUDE = 122°39'31" W

PROPERTY DESCRIPTION:
CLACKAMAS COUNTY ASSESSOR MAP
21E-23BC TAX LOT 1600
(T2S R1E SEC.23BC T.L. 1600)

ATTENTION EXCAVATORS:
OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0090. YOU MAY OBTAIN COPIES OF THESE RULES FROM THE CENTER BY CALLING 503-232-1987. IF YOU HAVE ANY QUESTIONS ABOUT THE RULES, YOU MAY CONTACT THE CENTER. YOU MUST NOTIFY THE CENTER AT LEAST TWO BUSINESS DAYS, BEFORE COMMENCING AN EXCAVATION. CALL 503-246-6699.

DEVELOPER
CITY OF WEST LINN
PARKS & RECREATION DEPT.
CONTACT: KEN WORCESTER
22500 SALAMO ROAD
WEST LINN, OR 97068
PHONE: 503-557-4700
FAX: 503-656-4106

PLANNING / ENGINEERING / SURVEYING FIRM
OTAK, INC.
CONTACT: DARRIN STAIRS, P.E.
17355 SW BOONES FERRY RD.
LAKE OSWEGO, OR 97035
PHONE: 503-635-3618
FAX: 503-635-5395

NARRATIVE DESCRIPTIONS

EXISTING SITE CONDITIONS
- UNDEVELOPED PUBLIC PARK

DEVELOPED CONDITIONS (ALL PHASES)
- PUBLIC PARK WITH PLAYGROUND, PICNIC AREAS, SPORTS FIELDS AND COURTS, PAVED PARKING LOT AND PATHWAYS, RESTROOM FACILITY

NATURE OF CONSTRUCTION ACTIVITY AND ESTIMATED TIME TABLE (PHASE 1)
- CLEARING (AUG 2010)
- MASS GRADING (AUG 2010 - OCT 2010)
- UTILITY INSTALLATION (SEPT 2010 - NOV 2010)
- STREET CONSTRUCTION (N/A)
- FINAL STABILIZATION (NOV 2010)

TOTAL SITE AREA = 8.25 ACRES
TOTAL DISTURBED AREA = 7.12 ACRES

SITE SOIL CLASSIFICATION:
23C-CORNELIUS SILT LOAM (95.9%)
7BC-SAUM SILT LOAM (4.1%)

ON-SITE SOILS HAVE A MODERATE TO SEVERE EROSION POTENTIAL. FILL MATERIAL WILL BE GENERATED ON-SITE FROM GRADING EXCAVATION AND UTILITY TRENCH SPOILS OR IMPORTED STRUCTURAL FILL.

RECEIVING WATER BODIES:
STORM WATER TO INFILTRATE ON-SITE, WITH OVERFLOW TO MUNICIPAL STORM SYSTEM. STORM SYSTEM FLOWS TO LOCAL CREEK, WHICH DISCHARGES TO WILLAMETTE RIVER.

PERMITTEE'S SITE INSPECTOR: IAN MACHAN P.E.
COMPANY/AGENCY: OTAK INCORPORATED
PHONE: 503-635-3618
FAX: 503-635-5395
E-MAIL: IAN.MACHAN@OTAK.COM
DESCRIPTION OF EXPERIENCE:
REGISTERED PROFESSIONAL CIVIL ENGINEER IN OREGON, WITH SPECIFIC SITE INSPECTION EXPERIENCE WITH PUBLIC PROJECTS, INCLUDING PREPARATION AND IMPLEMENTATION OF GRADING AND EROSION CONTROL PLANS. FIELD WORK INCLUDES OBSERVATION AND COORDINATION WITH SITE CONTRACTOR FOR EROSION AND SEDIMENT CONTROL MEASURES. ODOT CERTIFIED EROSION CONTROL INSPECTOR (#43580)

INSPECTION FREQUENCY:
- ONCE PER WEEK ON ACTIVE SITES.
- ONCE EVERY TWO WEEKS ON INACTIVE SITES.
- WITHIN 24 HRS. OF A RAIN EVENT THAT RESULTS IN RUNOFF.
- DAILY WHEN STORM WATER RUNOFF IS OCCURRING.

HOLD A PRE-CON MEETING OF PROJECT CONSTRUCTION PERSONNEL THAT INCLUDES THE EC INSPECTOR. ALL INSPECTIONS MUST BE MADE IN ACCORDANCE WITH DEQ'S 1200-C PERMIT REQUIREMENTS.

INSPECTION LOGS MUST BE KEPT IN ACCORDANCE WITH DEQ'S 1200-C PERMIT REQUIREMENTS PER SECTION 6B.

CHANGES TO THE APPROVED ESC PLAN MUST BE SUBMITTED TO DEQ IN THE FORM OF AN ACTION PLAN.

THE PERMITTEE IS REQUIRED TO MEET ALL THE CONDITIONS OF THE 1200C PERMIT. THIS ESCP AND GENERAL CONDITIONS HAVE BEEN DEVELOPED TO FACILITATE COMPLIANCE WITH THE 1200-C PERMIT REQUIREMENTS. IN CASES OF DISCREPANCIES OR OMISSIONS, THE 1200C PERMIT REQUIREMENTS SUPERSEDE REQUIREMENTS OF THIS PLAN.

STANDARD EROSION AND SEDIMENT CONTROL PLAN DRAWING NOTES:

1. APPLY TEMPORARY AND PERMANENT SOIL STABILIZATION MEASURES ON ALL DISTURBED AREAS AS GRADING PROGRESSES. (SCH A.5.b.E)
2. CONSTRUCTION ACTIVITIES MUST AVOID OR MINIMIZE EXCAVATION AND CREATION OF BARE GROUND FROM OCTOBER 1 THROUGH MAY 31 EACH YEAR. (SCH A.7.a.i.)
3. DURING WET WEATHER PERIODS TEMPORARY STABILIZATION OF THE SITE MUST OCCUR AT THE END OF EACH WORK DAY IF RAINFALL IS FORECAST IN THE NEXT 24 HOURS. (SCH A.7.a.ii)
4. ALL EROSION AND SEDIMENT CONTROLS NOT IN THE DIRECT PATH OF WORK MUST BE INSTALLED PRIOR TO ANY LAND DISTURBANCE. (SCH A.7.c.ii)
5. PRESERVE EXISTING VEGETATION AND RE-VEGETATE OPEN AREAS WHEN PRACTICABLE BEFORE AND AFTER GRADING OR CONSTRUCTION. (SCH A.7.c.ii.1)
6. ALL TEMPORARY SEDIMENT CONTROLS MUST REMAIN IN PLACE UNTIL PERMANENT VEGETATION OR OTHER PERMANENT COVERING OF EXPOSED SOIL IS ESTABLISHED. (SCH A.7.c.ii.3)
7. SEDIMENT CONTROLS MUST BE INSTALLED AND MAINTAINED ON ALL DOWN GRADIENT SIDES OF THE CONSTRUCTION SITE AT ALL TIMES DURING CONSTRUCTION. (SCH A.7.d.i(1))
8. ALL ACTIVE CATCH BASINS MUST HAVE SEDIMENT CONTROLS INSTALLED AND MAINTAINED AT ALL TIMES DURING CONSTRUCTION. (SCH A.7.d.i(3))
9. WATERTIGHT TRUCKS MUST BE USED TO TRANSPORT SATURATED SOILS FROM THE CONSTRUCTION SITE. AN APPROVED EQUIVALENT IS TO DRAIN THE SOIL ON-SITE AT A DESIGNATED LOCATION USING APPROPRIATE BMP's. SOIL MUST BE DRAINED SUFFICIENTLY FOR MINIMAL SPILLAGE. (SCH A.7.d.ii.2)
10. TEMPORARY STABILIZATION OR COVERING OF SOIL STOCKPILES MUST OCCUR AT THE END OF EACH WORK DAY OR OTHER BMP's MUST BE IMPLEMENTED TO PREVENT TURBID DISCHARGES TO SURFACE WATERS. (SCH A.7.e.ii.2)
11. DEVELOP AND MAINTAIN ONSITE A WRITTEN SPILL PREVENTION AND RESPONSE PROCEDURE. (SCH A.7.e.i.3)
12. ANY USE OF TOXIC OR OTHER HAZARDOUS MATERIALS MUST INCLUDE PROPER STORAGE, APPLICATION, AND DISPOSAL. (SCH A.7.e.ii(2))
13. THE PERMITTEE MUST PROPERLY PREVENT AND MANAGE HAZARDOUS WASTE, USED OILS, CONTAMINATED SOILS, CONCRETE WASTE, SANITARY WASTE, LIQUID WASTE, OR OTHER TOXIC SUBSTANCES DISCOVERED OR GENERATED DURING CONSTRUCTION. (SCH A.7.e.i AND SCH A.7.e.ii.4)
14. SIGNIFICANT AMOUNTS OF SEDIMENT WHICH LEAVE THE SITE MUST BE CLEANED UP WITHIN 24 HOURS AND PLACED BACK ON THE SITE AND STABILIZED OR PROPERLY DISPOSED. THE CAUSE OF THE SEDIMENT RELEASE MUST BE FOUND AND PREVENTED FROM CAUSING A REOCCURRENCE OF THE DISCHARGE WITHIN THE SAME 24 HOURS. ANY IN-STREAM CLEAN UP OF SEDIMENT SHALL BE PERFORMED ACCORDING TO THE OREGON DIVISION OF STATE LANDS REQUIRED TIME FRAME. (SCH A.7.f.i.1)
15. SEDIMENT MUST NOT BE INTENTIONALLY WASHED INTO STORM SEWERS, DRAINAGE WAYS, OR WATERBODIES. DRY SWEEPING MUST BE USED TO CLEAN UP RELEASED SEDIMENTS. (SCH A.7.f.i.2)
16. THE APPLICATION RATE OF FERTILIZERS USED TO PRESTABLISH VEGETATION MUST FOLLOW THE MANUFACTURER'S RECOMMENDATIONS. NUTRIENT RELEASES FROM FERTILIZERS TO SURFACE WATERS MUST BE MINIMIZED. TIME RELEASE FERTILIZERS SHOULD BE USED AND CARE SHOULD BE TAKEN IN THE APPLICATION OF FERTILIZERS WITHIN ANY WATER WAY RIPARIAN ZONE. (SCH A.7.f.i.3)
17. SEDIMENT MUST BE REMOVED FROM BEHIND SEDIMENT FENCE WHEN IT HAS REACHED A HEIGHT OF ⅓ THE HEIGHT OF THE FENCE ABOVE THE GROUND, AND BEFORE FENCE REMOVAL. (SCH A.7.f.ii.1)
18. SEDIMENT MUST BE REMOVED FROM BEHIND BIO BAGS AND OTHER BARRIERS WHEN IT HAS REACHED A HEIGHT OF TWO (2) INCHES AND BEFORE BMP REMOVAL. (SCH A.7.f.ii.2)
19. CLEANING OF TRAPPED CATCH BASINS MUST OCCUR WHEN THE SEDIMENT RETENTION CAPACITY HAS BEEN REDUCED BY FIFTY (50) PERCENT, AND AT COMPLETION OF PROJECT. (SCH A.7.f.ii.3)
20. REMOVAL OF TRAPPED SEDIMENT IN A SEDIMENT BASIN OR SEDIMENT TRAP MUST OCCUR WHEN THE SEDIMENT RETENTION CAPACITY HAS BEEN REDUCED BY FIFTY (50) PERCENT, AND AT COMPLETION OF PROJECT. (SCH A.7.f.ii.3&4)
21. DEQ MUST APPROVE OF ANY TREATMENT SYSTEM AND OPERATIONAL PLAN THAT MAY BE NECESSARY TO TREAT CONTAMINATED CONSTRUCTION DEWATERING OR SEDIMENT AND TURBIDITY IN STORM WATER RUNOFF. (SCH A.7.f.iii)
22. SHOULD ALL CONSTRUCTION ACTIVITIES CEASE FOR THIRTY (30) DAYS OR MORE, THE ENTIRE SITE MUST BE TEMPORARILY STABILIZED USING VEGETATION OR A HEAVY MULCH LAYER, TEMPORARY SEEDING, OR OTHER METHOD. (SCH A.8.a)
23. SHOULD CONSTRUCTION ACTIVITIES CEASE FOR FIFTEEN (15) DAYS OR MORE ON ANY SIGNIFICANT PORTION OF A CONSTRUCTION SITE, TEMPORARY STABILIZATION IS REQUIRED FOR THAT PORTION OF THE SITE WITH STRAW, COMPOST, OR OTHER TACKIFIED COVERING THAT WILL PREVENT SOIL OR WIND EROSION UNTIL WORK RESUMES ON THAT PORTION OF THE SITE. (SCH A.8.b)

LOCAL AGENCY-SPECIFIC EROSION CONTROL NOTES:

1. OWNER OR DESIGNATED PERSON SHALL BE RESPONSIBLE FOR PROPER INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.
2. PRIOR TO ANY LAND DISTURBING ACTIVITIES, THE BOUNDARIES OF THE CLEARING LIMITS, VEGETATED BUFFERS, AND ANY SENSITIVE AREAS SHOWN ON THIS PLAN SHALL BE CLEARLY DELINEATED IN THE FIELD. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE IS PERMITTED BEYOND THE CLEARING LIMITS. THE OWNER/PERMITTEE MUST MAINTAIN THE DELINEATION FOR THE DURATION OF THE PROJECT. VEGETATED CORRIDORS TO BE DELINEATED WITH ORANGE CONSTRUCTION FENCE OR APPROVED EQUAL.
3. PRIOR TO ANY LAND DISTURBING ACTIVITIES, THE BMP's THAT MUST BE INSTALLED ARE A GRAVEL CONSTRUCTION ENTRANCE, PERIMETER SEDIMENT CONTROL, AND INLET PROTECTION. THESE BMP's MUST BE MAINTAINED FOR THE DURATION OF THE PROJECT.
4. IF VEGETATIVE SEED MIXES ARE SPECIFIED, SEEDING MUST TAKE PLACE NO LATER THAN SEPTEMBER 1. THE TYPE AND PERCENTAGES OF SEED IN THE MIX MUST BE IDENTIFIED ON THE PLANS.
5. ALL PUMPING OF SEDIMENT LADEN WATER SHALL BE DISCHARGED OVER AN UNDISTURBED, PREFERABLY VEGETATED AREA, AND THROUGH A SEDIMENT CONTROL BMP (i.e. FILTER BAG).
6. THE ESC PLAN MUST BE KEPT ON SITE. ALL MEASURES SHOWN ON THE PLAN MUST BE INSTALLED PROPERLY TO ENSURE THAT SEDIMENT OR SEDIMENT LADEN WATER DOES NOT ENTER A SURFACE WATER SYSTEM, ROADWAY, OR OTHER PROPERTIES.
7. THE ESC MEASURES SHOWN ON THIS PLAN ARE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE MEASURES SHALL BE UPGRADED AS NEEDED TO COMPLY WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL EROSION CONTROL REGULATIONS. CHANGES TO THE APPROVED ESC PLAN MUST BE SUBMITTED IN THE FORM OF AN ACTION PLAN TO DEQ PER THE 1200-C PERMIT.
8. IN AREAS SUBJECT TO WIND EROSION, APPROPRIATE BMP's MUST BE USED WHICH MAY INCLUDE THE APPLICATION OF FINE WATER SPRAYING, PLASTIC SHEETING, MULCHING, OR OTHER APPROVED MEASURES.
9. ALL EXPOSED SOILS MUST BE COVERED DURING THE WET WEATHER PERIOD.
10. THE EROSION AND SEDIMENT CONTROL MEASURES SHALL CONFORM TO THE CLACKAMAS COUNTY WATER ENVIRONMENT SERVICES OF THE EROSION PREVENTION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL DATED DECEMBER 2008.

BMP MATRIX FOR CONSTRUCTION PHASES

REFER TO DEQ GUIDANCE MANUAL FOR A COMPREHENSIVE LIST OF AVAILABLE BMP'S.

	CLEARING	MASS GRADING	UTILITY INSTALLATION	STREET CONSTRUCTION	FINAL STABILIZATION	WET WEATHER (OCT 1 - MAY 31ST)
EROSION PREVENTION						
[illegible]	**X	X	X	X	X	X
[illegible]					X	X
[illegible]					X	
[illegible]						X
[illegible]					X	X
[illegible]	X	X	X	X	X	X
[illegible]		X	X	X	X	X
[illegible]	X	X	X	X	X	X
OTHER						
SEDIMENT CONTROL						
[illegible]	**X	X	X	X	X	X
[illegible]			X	X	X	X
[illegible]						
[illegible]						
OTHER						
RUNOFF CONTROL						
[illegible]	**X	X	X	X	X	X
[illegible]						
[illegible]			X			
[illegible]					X	
[illegible]						
OTHER						
POLLUTION PREVENTION						
[illegible]	X	X	X	X	X	X
[illegible]	X	X	X	X	X	X
[illegible]	X	X	X	X	X	X
[illegible]	X	X	X	X	X	X
OTHER						

** SIGNIFIES BMP THAT WILL BE INSTALLED PRIOR TO ANY GROUND DISTURBING ACTIVITY.

RATIONALE STATEMENT

A COMPREHENSIVE LIST OF AVAILABLE BEST MANAGEMENT PRACTICES (BMP) OPTIONS BASED ON DEQ's GUIDANCE MANUAL HAS BEEN REVIEWED TO COMPLETE THIS EROSION AND SEDIMENT CONTROL PLAN. SOME OF THE ABOVE LISTED BMP's WERE NOT CHOSEN BECAUSE THEY WERE DETERMINED TO NOT EFFECTIVELY MANAGE EROSION PREVENTION AND SEDIMENT CONTROL FOR THIS PROJECT BASED ON SPECIFIC SITE CONDITIONS, INCLUDING SOIL CONDITIONS, TOPOGRAPHIC CONSTRAINTS, ACCESSIBILITY TO THE SITE, AND OTHER RELATED CONDITIONS. AS THE PROJECT PROGRESSES AND THERE IS A NEED TO REVISE THE ESC PLAN, AN ACTION PLAN WILL BE SUBMITTED.

SHEET INDEX

EROSION AND SEDIMENT CONTROL PLANS
EC-00 EROSION AND SEDIMENT CONTROL PLAN COVER SHEET
EC-01 CLEARING AND DEMOLITION
EC-02 GRADING, STREET, AND UTILITY CONSTRUCTION
EC-03 EROSION AND SEDIMENT CONTROL DETAILS

Bid Drawings - July 2, 2010

MARYLHURST PARK PHASE I
EROSION AND SEDIMENT CONTROL PLAN
COVER SHEET

NO.	DATE	BY	REVISION COMMENTS

Design: RBS | Drawn: SDS | Checked: DBS | Date: JULY 2010

REGISTERED PROFESSIONAL ENGINEER 51051PE OREGON DARRIN H. STAIRS
EXPIRES JUNE 30, 2012

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City of West Linn Parks and Recreation
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West Linn, OR 97068
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Sheet No. EC-00

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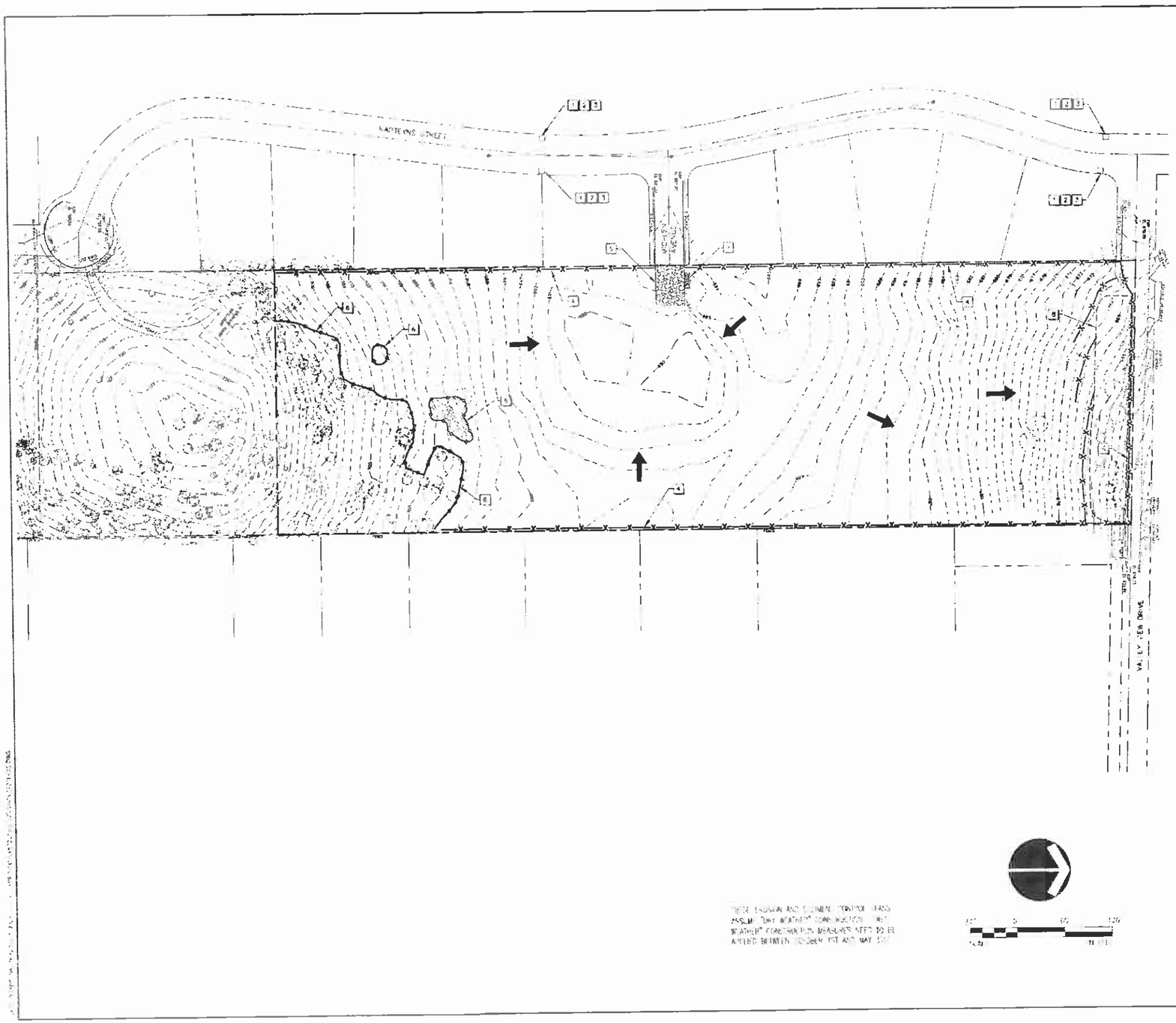

LEGEND:

EXISTING CONTOUR (1 FT)

EXISTING CONTOUR (5 FT)

EXISTING TREES

SEDIMENT FENCE (TO BE INSTALLED PRIOR TO GRADING)

TREE PROTECTION FENCE (TO BE INSTALLED PRIOR TO GRADING)

CONSTRUCTION ENTRANCE

DRAINAGE FLOW DIRECTION

CONCRETE WASHOUT STATION

CLEARING AND DEMOLITION NOTES:

1. ALL BASIC ESC MEASURES (INLET PROTECTION, PERIMETER SEDIMENT CONTROL, GRAVEL CONSTRUCTION ENTRANCES, ETC.) MUST BE IN PLACE, FUNCTIONAL, AND APPROVED IN AN INITIAL INSPECTION, PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.

2. SEDIMENT BARRIERS APPROVED FOR USE INCLUDE SEDIMENT FENCE, BERMS CONSTRUCTED OUT OF MULCH, CHIPPINGS, OR OTHER SUITABLE MATERIAL, STRAW WATTLES, OR OTHER APPROVED MATERIALS.

3. SENSITIVE RESOURCES INCLUDING, BUT NOT LIMITED TO, AREAS, WETLANDS, AND RIPARIAN PROTECTION AREAS SHALL BE CLEARLY DELINEATED WITH ORANGE CONSTRUCTION FENCING OR CHAIN LINK FENCING IN A MANNER THAT IS CLEARLY VISIBLE TO ANYONE IN THE AREA. NO ACTIVITIES ARE PERMITTED TO OCCUR BEYOND THE CONSTRUCTION BARRIER.

4. CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES INCLUDING BUT NOT LIMITED TO STREET SWEEPING, AND VACUUMING MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.

5. RUN-ON AND RUN-OFF CONTROLS SHALL BE IN PLACE AND FUNCTIONING PRIOR TO BEGINNING SUBSTANTIAL CONSTRUCTION ACTIVITIES. RUN-ON AND RUN-OFF CONTROL MEASURES INCLUDE SLOPE DRAINS (WITH OUTLET PROTECTION), CHECK DAMS, SURFACE ROUGHENING, AND BANK STABILIZATION.

6. CONTRACTOR TO LOCATE AND ABANDON SEPTIC, GAS, DIESEL, OIL TANKS, WATER WELLS AND DRAIN FIELDS PER APPLICABLE LOCAL, STATE AND FEDERAL REQUIREMENTS.

7. PROJECT CLEARING LIMITS DEFINED BY PROPERTY LINE AND TREE PROTECTION FENCE AS SHOWN ON PLAN.

CONSTRUCTION NOTES:

1. EXISTING CATCH BASIN
2. INSTALL CATCH BASIN INLET PROTECTION PER DETAIL 1, SHEET EC-02
3. INSTALL BIO-FILTER BAG PROTECTION PER DETAIL 2, SHEET EC-02
4. INSTALL SEDIMENT FENCE PER DETAIL 3, SHEET EC-02
5. INSTALL CONSTRUCTION ENTRANCE PER DETAIL 4, SHEET EC-02
6. INSTALL TREE PROTECTION FENCE PER DETAIL 5, SHEET EC-02
7. INSTALL CONCRETE WASHOUT STATION PER DETAIL 6, SHEET EC-02. INSTALL IN AREA OF PROPOSED LANDSCAPE PLANS
8. LEAVE 4-5:1 WIDE UNDISTURBED VEGETATED BUFFER DURING MASS GRADING TO PROVIDE A NATURAL VEGETATION RUNOFF FILTER. THIS AREA MAY BE GRADED AFTER ALL OTHER UPHILL GRADING WORK HAS BEEN COMPLETE.

NOTE: EROSION AND SEDIMENT CONTROL PLANS ASSUME DRY WEATHER CONSTRUCTION. WET WEATHER CONSTRUCTION MEASURES NEED TO BE APPLIED BETWEEN OCTOBER 1ST AND MAY 31ST.

NO	DATE	BY	REVISION COMMENTS
			Design: Drawn: Checked: Job Number: Issue Date:
			DRG: ASS: TBE: JULY 2010

REGISTERED PROFESSIONAL ENGINEER — OREGON — DARIN B. SYLVIA

EXPIRES JUNE 30, 2012

Westlinn

City of West Linn Public Works and Assistance
22500 Salamo Road
West Linn, OR 97068
PHONE 503-657-0331

MARYLHURST PARK PHASE I

EROSION AND SEDIMENT CONTROL PLAN
CLEARING AND DEMOLITION

Bid Drawings – July 2, 2010

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EC-01
Sheet No.

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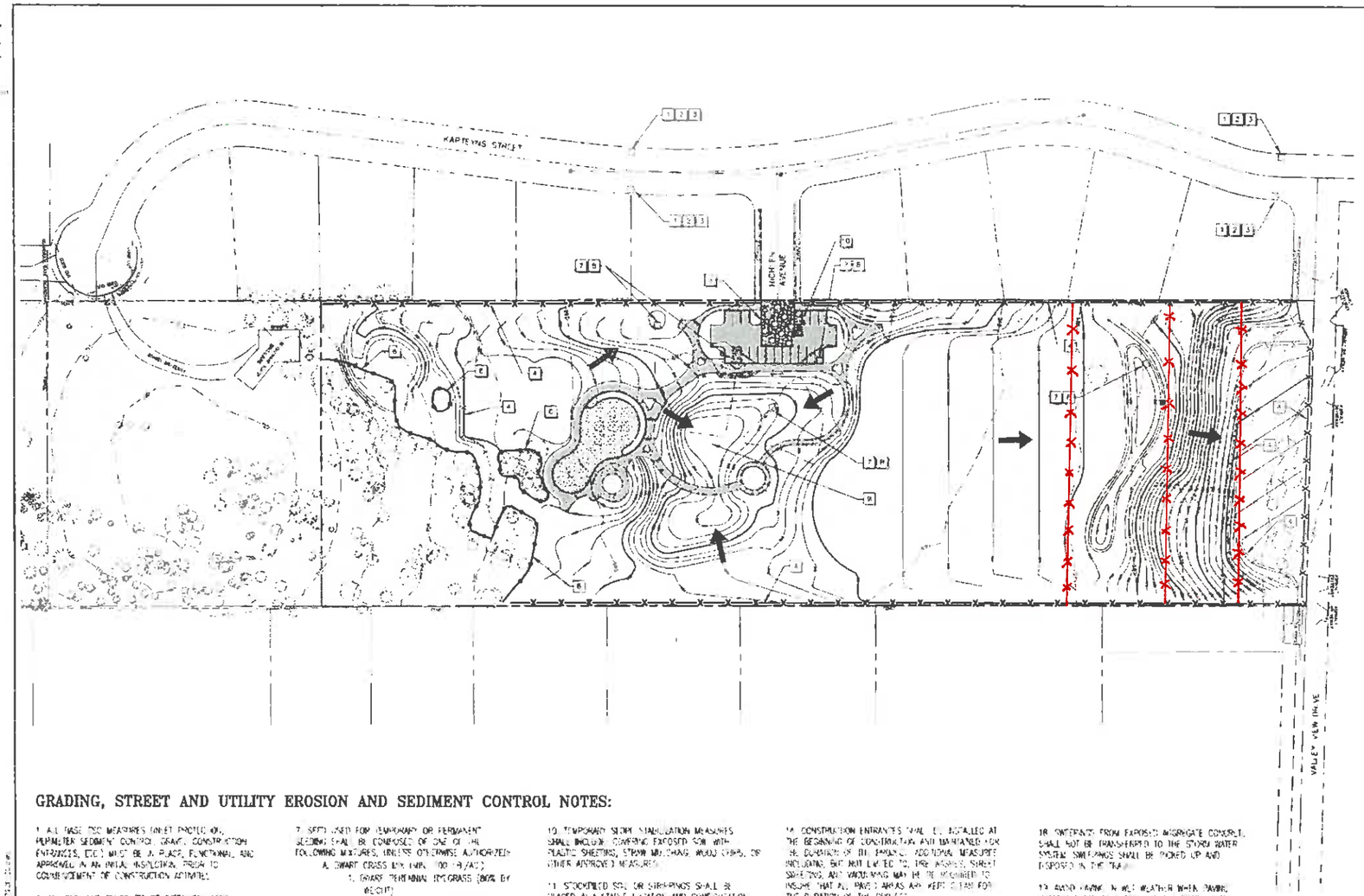

LEGEND:

- EXISTING CONTOUR (1 FT)
- EXISTING CONTOUR (5 FT)
- PROPOSED CONTOUR (1 FT)
- PROPOSED CONTOUR (5 FT)
- EXISTING TREES
- SEDIMENT FENCE (TO BE INSTALLED PRIOR TO GRADING)
- SEDIMENT FENCE (TO BE INSTALLED AFTER GRADING)
- TREE PROTECTION FENCE (TO BE INSTALLED PRIOR TO GRADING)
- Additional Sediment Fence
- CONSTRUCTION ENTRANCE
- NEW IMPERVIOUS SURFACE
- DRAINAGE FLOW DIRECTION
- CONCRETE WASHOUT STATION

CONSTRUCTION NOTES:

1. EXISTING CATCH BASIN
2. INSTALL CATCH BASIN INLET PROTECTION PER DETAIL 1, SHEET EC-03.
3. INSTALL BIO-FILTER BAG PROTECTION PER DETAIL 2, SHEET EC-03.
4. INSTALL SEDIMENT FENCE PER DETAIL 3, SHEET EC-03.
5. INSTALL CONSTRUCTION ENTRANCE PER DETAIL 4, SHEET EC-03.
6. INSTALL TREE PROTECTION FENCE PER DETAIL 5, SHEET EC-03.
7. PROPOSED AREA DRAIN.
8. INSTALL AREA DRAIN INLET PROTECTION PER DETAIL 1, SHEET EC-03.
9. RETENTION (LOW FLOWS) / DETENTION (HIGH FLOWS) POND. LOW FLOWS TO INFILTRATE.
10. INSTALL CONCRETE WASHOUT STATION PER DETAIL 6, SHEET EC-03. INSTALL IN AREA OF PROPOSED LANDSCAPE ISLAND.

GRADING, STREET AND UTILITY EROSION AND SEDIMENT CONTROL NOTES:

1. ALL BASIC BMP MEASURES (INLET PROTECTION, PERIMETER SEDIMENT CONTROL, GRAVEL CONSTRUCTION ENTRANCES, ETC.) MUST BE IN PLACE, FUNCTIONAL, AND APPROVED IN AN INITIAL INSPECTION PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.

2. ALL SEDIMENT FENCE (TO BE INSTALLED AFTER GRADING) SHALL BE INSTALLED IMMEDIATELY FOLLOWING ESTABLISHMENT OF FINISHED GRADE AS SHOWN ON THESE PLANS.

3. LONG TERM SLOPE STABILIZATION MEASURES INCLUDING MATTING SHALL BE IN PLACE OVER ALL EXPOSED SOILS PRIOR TO PAVING.

4. THE STORM WATER FACILITY SHALL BE CONSTRUCTED AND LANDSCAPED PRIOR TO THE STORM WATER SYSTEM FUNCTIONING AND SPILLWAY.

5. INLET PROTECTION SHALL BE IN PLACE IMMEDIATELY FOLLOWING PAVING ACTIVITY.

7. SEED USED FOR TEMPORARY OR PERMANENT SEEDING SHALL BE COMPOSED OF ONE OF THE FOLLOWING MIXTURES, UNLESS OTHERWISE AUTHORIZED:
   A. DWARF GRASS MIX (MIN. 100 LB/ACC)
      1. DWARF PERENNIAL RYEGRASS (80% BY WEIGHT)
      2. CREEPING RED FESCUE (20% BY WEIGHT)
   B. STANDARD HERBS (SHALL MIX (MIN. 100 LB/ACC)
      1. ANNUAL RYEGRASS (40% BY WEIGHT)
      2. TURF-TYPE FESCUE (60% BY WEIGHT)

8. ALL SLOPES SUBJECT OR SUSCEPTIBLE TO EROSION TEMPORARY OR PERMANENT SEEDING SHALL HAVE THE SURFACE ROUGHENED BY MEANS OF TRACK WALKING OR THE USE OF OTHER APPROVED SUPPLEMENT. SURFACE ROUGHENING IMPROVES SEED GERMINATION AND REDUCES RUN-OFF VELOCITY.

9. LONG TERM SLOPE STABILIZATION MEASURES SHALL INCLUDE THE ESTABLISHMENT OF PERMANENT VEGETATIVE COVER VIA SEEDING WITH APPROVED MIX AND APPLICATION RATE.

10. TEMPORARY SLOPE STABILIZATION MEASURES SHALL INCLUDE COVERING EXPOSED SOIL WITH PLASTIC SHEETING, STRAW MULCHING, WOOD CHIPS, OR OTHER APPROVED MEASURES.

11. STOCKPILED SOIL OR STRIPPINGS SHALL BE PLACED IN A STABLE LOCATION AND CONFIGURATION DURING "WET WEATHER" PERIODS. STOCKPILES SHALL BE COVERED WITH PLASTIC SHEETING OR STRAW MULCH. SEDIMENT FENCE IS REQUIRED AROUND THE PERIMETER OF THE STOCKPILE.

12. EXPOSED CUT OR FILL AREAS SHALL BE STABILIZED THROUGH THE USE OF TEMPORARY SEEDING AND MULCHING, EROSION CONTROL BLANKETS OR MATS, MID-SLOPE SEDIMENT FENCES OR WATTLES OR OTHER APPROPRIATE MEASURES. SLOPES EXCEEDING 25% MAY REQUIRE ADDITIONAL EROSION CONTROL MEASURES.

13. AREAS SUBJECT TO WIND EROSION SHALL USE APPROPRIATE DUST CONTROL MEASURES INCLUDING THE APPLICATION OF A FINE SPRAY OF WATER, PLASTIC SHEETING, STRAW MULCHING, OR OTHER APPROVED MEASURES.

14. CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES INCLUDING, BUT NOT LIMITED TO, TIRE WASHES, STREET SWEEPING, AND VACUUMING MAY BE REQUIRED TO INSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.

15. NOTE: INLETS TO STORM WATER SYSTEM SHALL BE PROTECTED THROUGH THE USE OF APPROVED INLET PROTECTION MEASURES. ALL INLET PROTECTION MEASURES ARE TO BE REGULARLY INSPECTED AND MAINTAINED AS NEEDED.

16. SATURATED MATERIALS THAT ARE LIQUID OR PASTE MUST BE TRANSPORTED IN A WATER TIGHT VEHICLE TO ELIMINATE SPILLAGE OF SEDIMENT AND SEDIMENT-LADEN WATER.

17. AN AREA SHALL BE PROVIDED FOR THE WASHING OUT OF CONCRETE TRUCKS IN A LOCATION THAT CAN NOT PROVIDE RUN-OFF THAT CAN ENTER THE STORM WATER SYSTEM. IF THE CONCRETE WASH OUT AREA CAN NOT BE CONSTRUCTED GREATER THAN 50' FROM ANY DISCHARGE POINT, SECONDARY BARRIERS SUCH AS BERMS OR TEMPORARY SET UPS MAY BE REQUIRED. THE WASH OUT SHALL BE LOCATED WHERE SUFFICIENT TRUCK ACCESS AND BE CLEANED WHEN 2/3 REACHED FULL CAPACITY.

18. SWEEPINGS FROM EXPOSED AGGREGATE CONCRETE SHALL NOT BE TRANSFERRED TO THE STORM WATER SYSTEM. SWEEPINGS SHALL BE PICKED UP AND DISPOSED IN THE TRASH.

19. AVOID PAVING IN WET WEATHER WHEN PAVING CHEMICALS CAN RUN OFF INTO THE STORM WATER SYSTEM.

20. USE EMPHASIS ON AS SOON AS POSSIBLE, BERMS, AND INLET PROTECTION TO PREVENT RUN OFF FROM REACHING DISCHARGE POINTS.

21. COVER OPEN TRENCHES, AREA DRAINS, MANHOLES, AND OTHER DISCHARGE POINTS WITH APPROVED STRAW MATS, MATS, ETC. TO PREVENT INTRODUCING SEDIMENTS INTO THE STORM WATER SYSTEM.

THESE EROSION AND SEDIMENT CONTROL PLANS ASSUME "DRY WEATHER" CONSTRUCTION. "WET WEATHER" CONSTRUCTION MEASURES NEED TO BE APPLIED BETWEEN OCTOBER 1ST AND MAY 31ST.

Bid Drawings - July 2, 2010

MARYLHURST PARK PHASE I

EROSION AND SEDIMENT CONTROL PLAN
GRADING, STREET AND UTILITY CONSTRUCTION

otak
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Fax (503) 635-5395
Internet www.otak.com

Project No. Drawing No.
EC-02
Sheet No.

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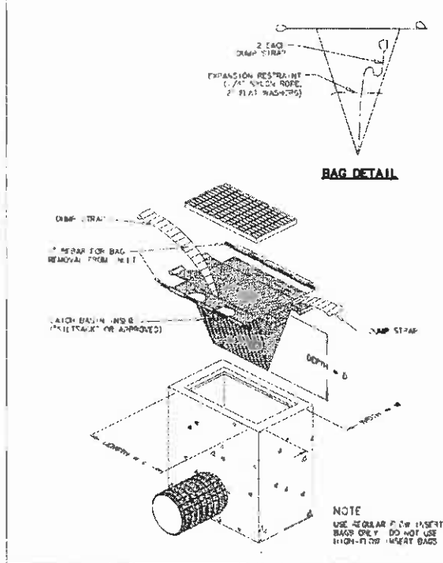
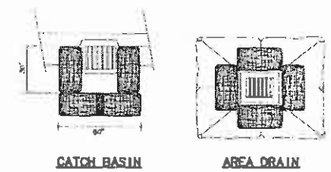


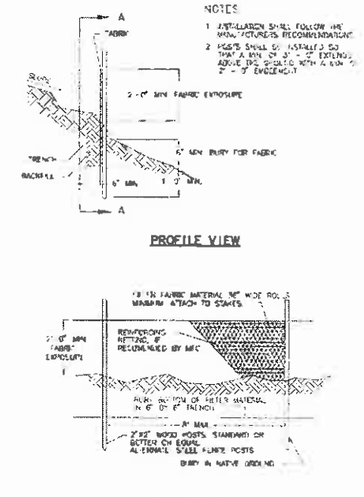
DETAIL 1 | CATCH BASIN AND AREA DRAIN INLET PROTECTION



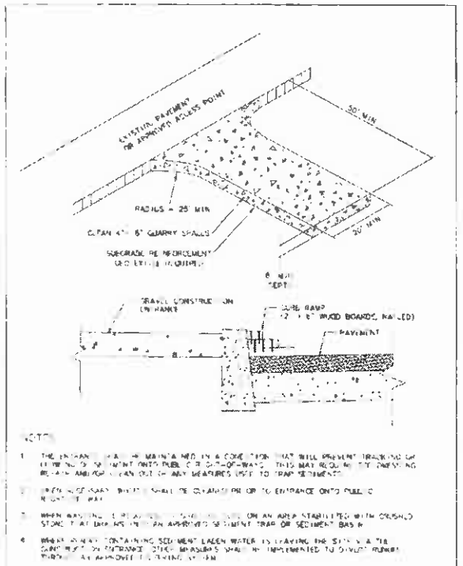
NOTES

1. USE IN COMBINATION WITH CATCH BASIN INLET PROTECTION (SILT SACK) WHERE SHOWN ON PLANS OR AS DIRECTED BY PLANS.
2. BIO-FILTER BAGS SHOULD BE STAKED (WHEN APPLICABLE) USING (2) WOODEN STAKES PER BAG.
3. WHEN USING 30" BIO-FILTER BAGS FOR CATCH BASIN PROTECTION, USE 4 BAGS WITH 6" OVERLAPPING.

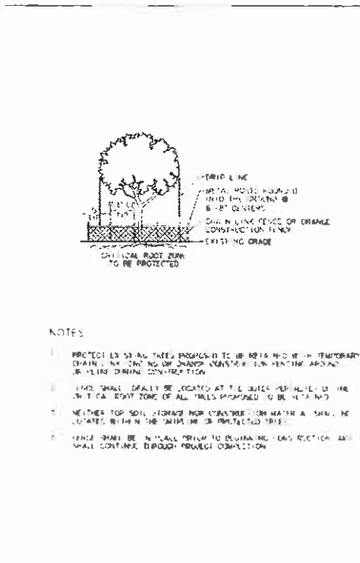
DETAIL 2 | BIO-FILTER BAG INLET PROTECTION



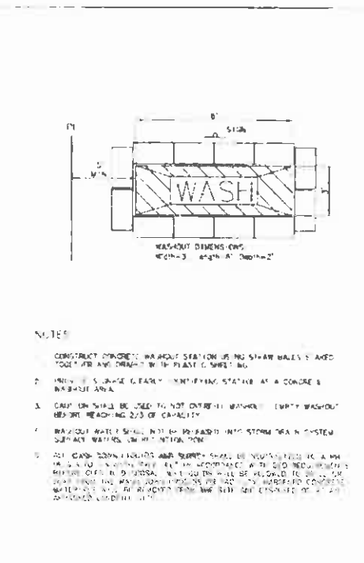
DETAIL 3 | SEDIMENT FENCE



DETAIL 4 | CONSTRUCTION ENTRANCE



DETAIL 5 | TREE PROTECTION FENCE



DETAIL 6 | CONCRETE WASHOUT STATION

Bid Drawings – July 2, 2010

MARYLHURST PARK PHASE I

EROSION AND SEDIMENT CONTROL PLANS
DETAILS

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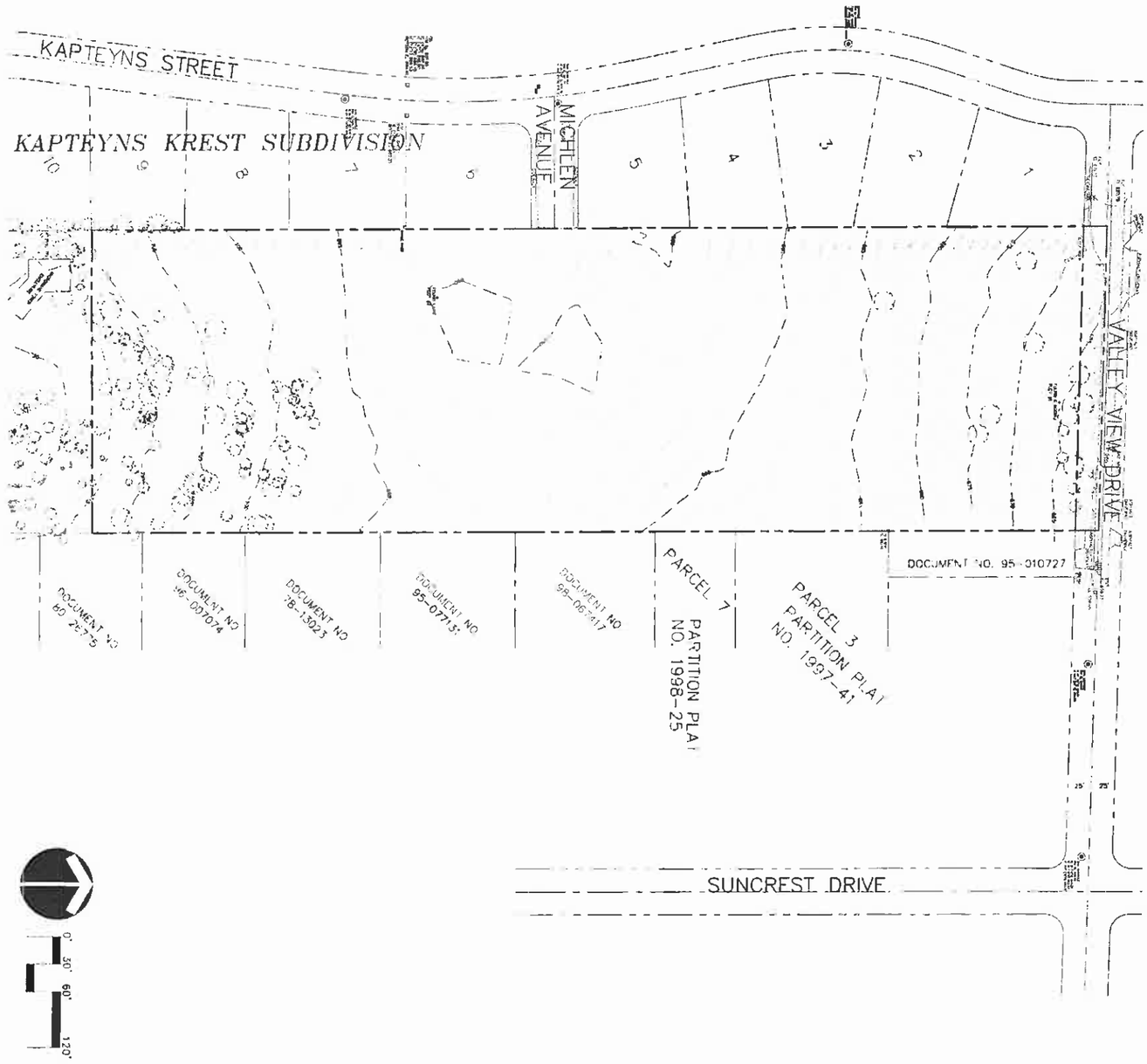
FAX (503) 635-5395
Internet www.otak.com

Project No. Drawing No.
EC-03



Bid Drawings – July 2, 2010

MARYLHURST PARK PHASE I

EXISTING CONDITIONS

otak Incorporated

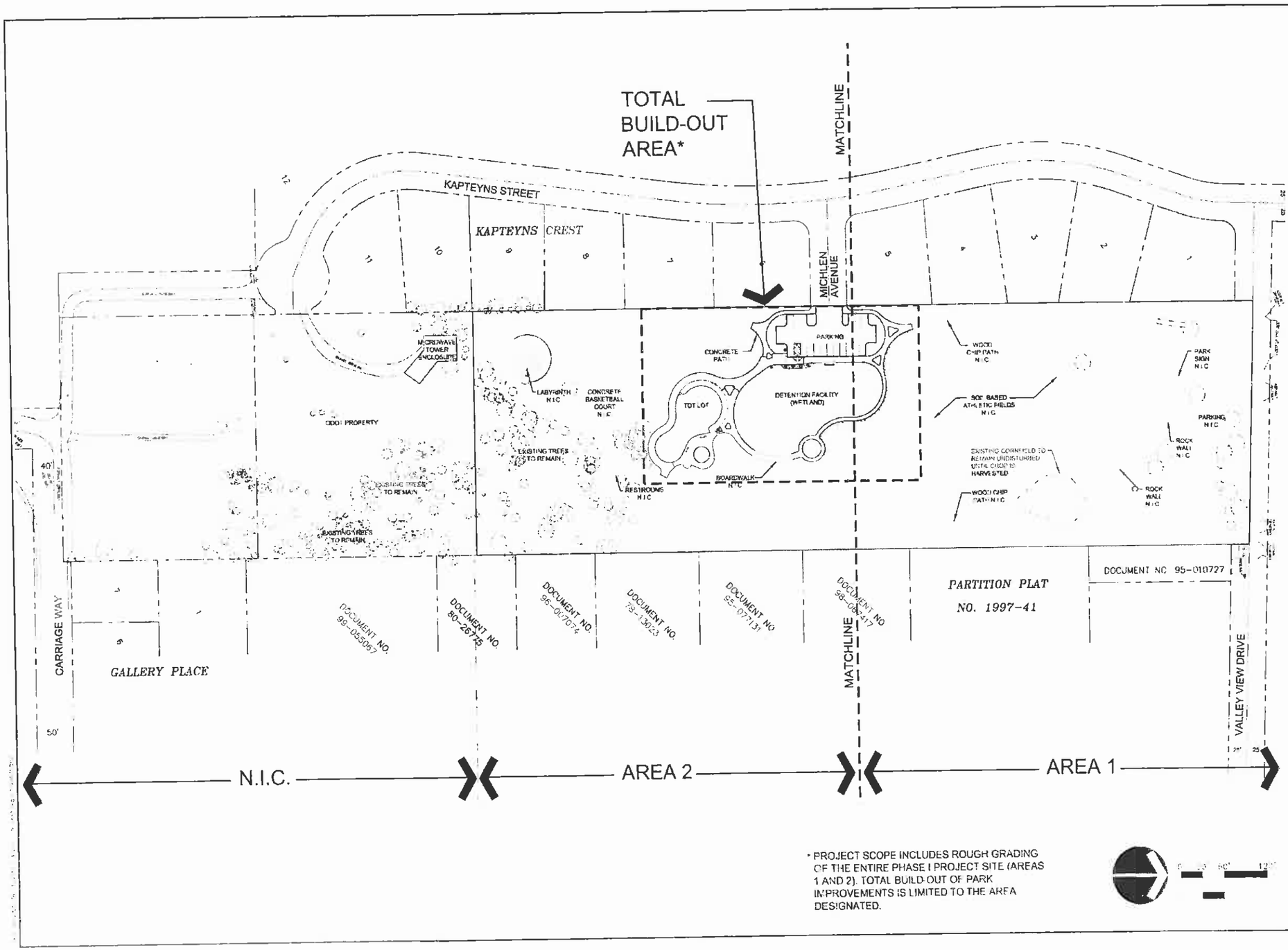
West Linn

REGISTERED LANDSCAPE ARCHITECT OREGON

NO	DATE	BY	REVISION COMMENTS

Design	Drawn	Checked	Date	Initial Issue Date
KEI	KEI	DRS		JULY 2010

L0.02



* PROJECT SCOPE INCLUDES ROUGH GRADING OF THE ENTIRE PHASE I PROJECT SITE (AREAS 1 AND 2). TOTAL BUILD-OUT OF PARK IMPROVEMENTS IS LIMITED TO THE AREA DESIGNATED.

REGISTERED LANDSCAPE ARCHITECT OREGON

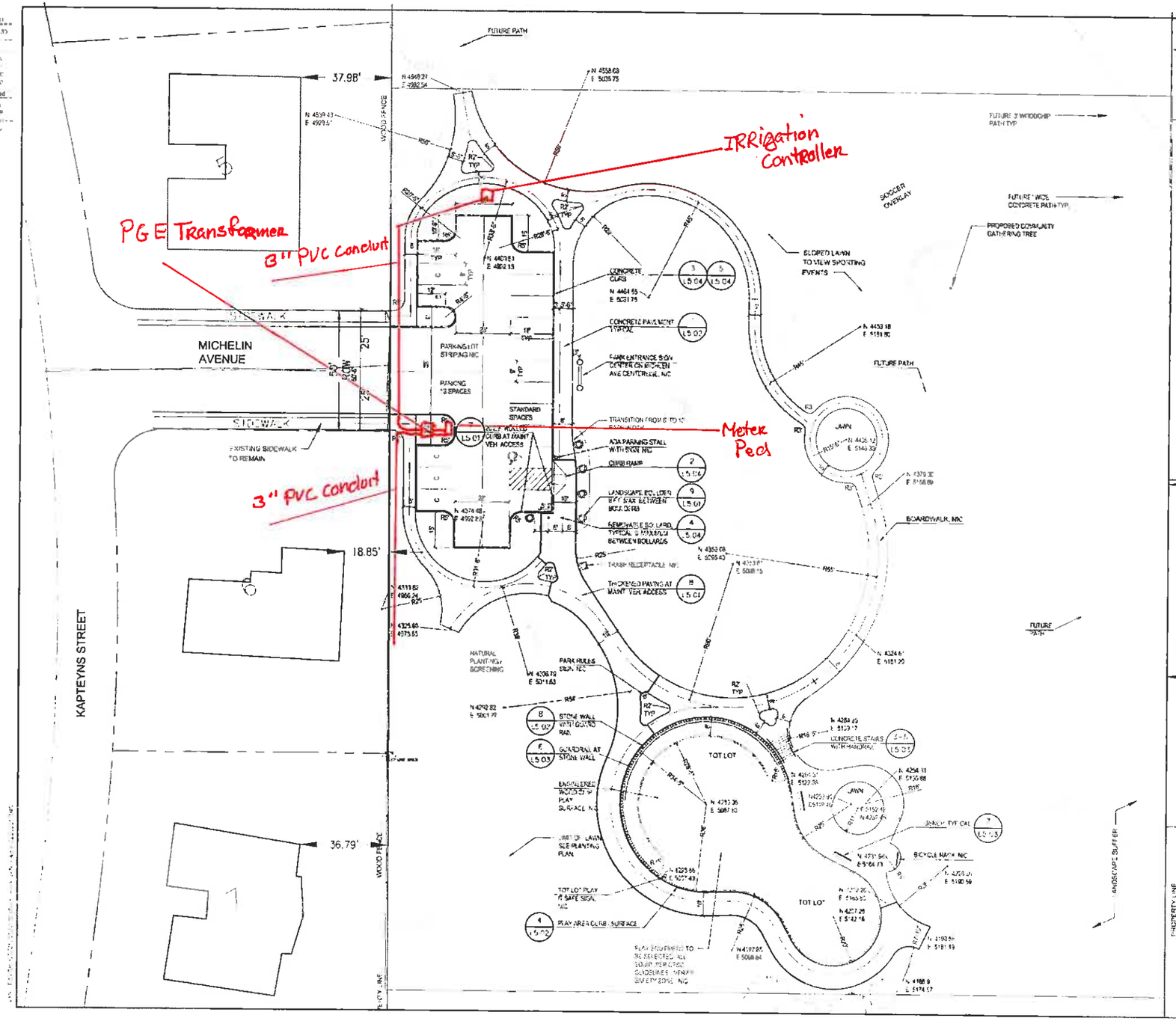
Bid Drawings – July 2, 2010

MARYLHURST PARK PHASE I

OVERALL SITE PLAN

otak

L0.03



LEGEND

- CONCRETE PATH WIDTH VARIES
- WOOD CHIP PLAY SURFACE (N I C)
- ROCK RETAINING WALL HEIGHT VARIES
- BENCH (N I C)
- TRASH RECEPTACLE (N I C)
- AREA DRAIN
- HANDRAIL
- BIKE RACK (N I C)
- SIGN (N I C)

NOTES:

1. BUILDINGS OUTSIDE THE PROJECT SITE BOUNDARY HAVE BEEN APPROXIMATED FROM A 2006 ½ FOOT AERIAL PHOTO.
2. FENCES ARE APPROXIMATED FROM VISUAL SURVEY IN THE FIELD.
3. ALL LANDSCAPE AREAS SHALL BE WATERED BY A FULLY AUTOMATIC UNDERGROUND IRRIGATION SYSTEM. (ADDITIVE ALTERNATE NO. 1)

0' 10' 20' 40'

Bid Drawings – July 2, 2010

MARYLHURST PARK PHASE I

LAYOUT PLAN

REGISTERED LANDSCAPE ARCHITECT OREGON

otak

L1.01

NOTES:

1) SEE CIVIL DRAWING FOR UTILITY LOCATIONS

LEGEND

AD	AREA DRAIN
CB	CATCH BASIN
TC	TOP CURB
BC	BOTTOM CURB
TW	TOP WALL
BW	BOTTOM WALL
TS	TOP STEP
BS	BOTTOM STEP
HP	HIGH POINT
LP	LOW POINT
⊗	REMOVE TREE
163	EXISTING CONTOURS
163	PROPOSED 1 FOOT CONTOURS
165	PROPOSED 5 FOOT CONTOURS

0' 15' 30' 60'

Bid Drawings – July 2, 2010

REGISTERED LANDSCAPE ARCHITECT 263 David D. Haynes OREGON 10-12-99

MARYLHURST PARK PHASE I

ROUGH GRADING PLAN
AREA 1

otak incorporated
17325 SE Bowers Ferry Rd.
Lake Oswego, Oregon 97035
Phone (503) 635-3618
FAX (503) 635-5930
Internet www.otak.com

15722 Project No. Drawing No. L2.01

Sheet No.

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XREF LIST
Uisc'e 30

Resolved
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L245X101
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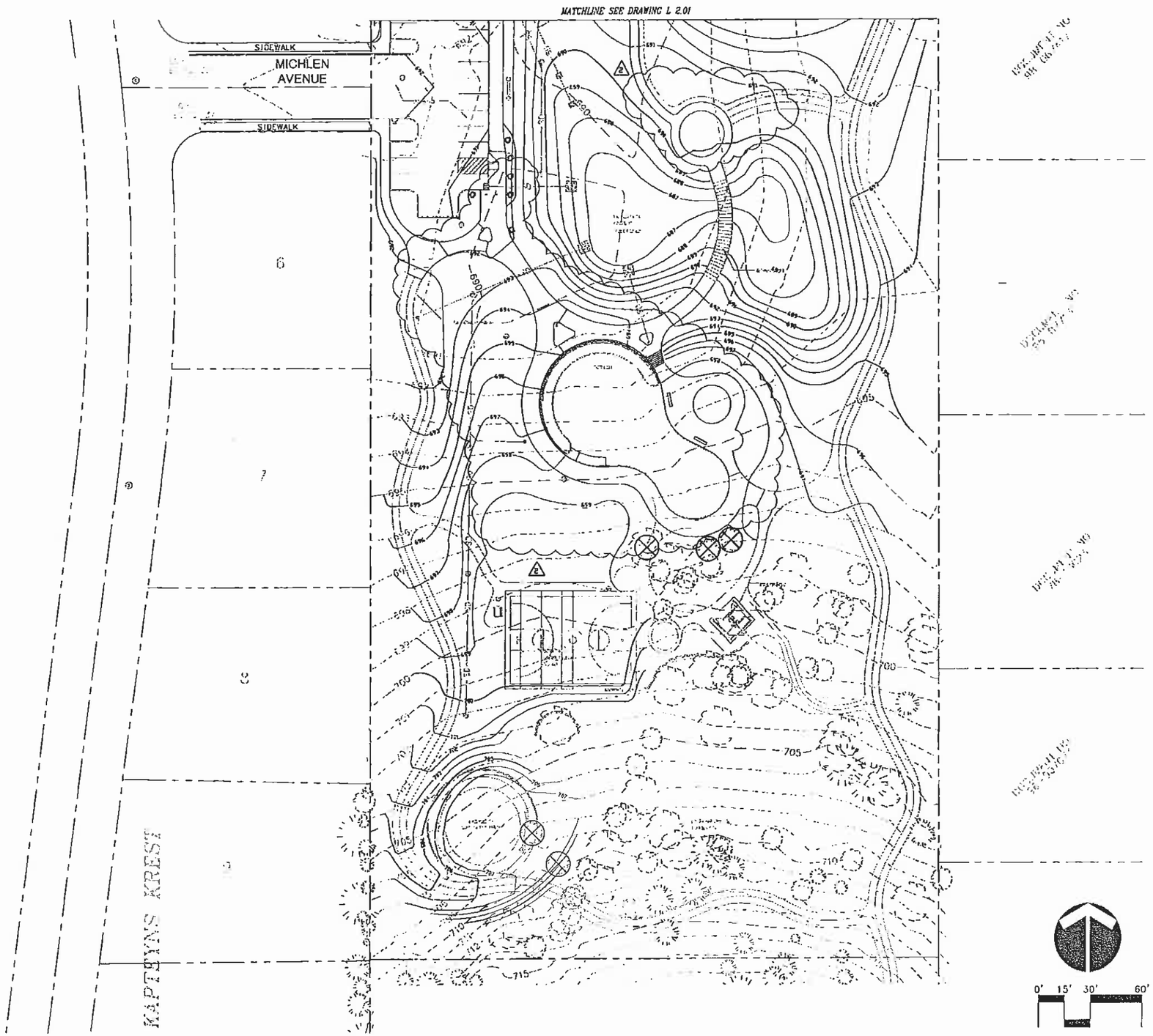

NOTES:

1.) SEE CIVIL DRAWING FOR UTILITY LOCATIONS.

LEGEND

AD	AREA DRAIN
CB	CATCH BASIN
TC	TOP CURB
BC	BOTTOM CURB
TW	TOP WALL
BW	BOTTOM WALL
TS	TOP STEP
BS	BOTTOM STEP
HP	HIGH POINT
LP	LOW POINT
⊗	REMOVE TREE
— —183 · · ·	EXISTING CONTOURS
——183——	PROPOSED 1 FOOT CONTOURS
——185——	PROPOSED 5 FOOT CONTOURS

No.	DATE	BY	REVISION COMMENTS
3	9/13	BDS	STORM SYSTEM REVISIONS
2	8/27	BDS	STORM SYSTEM REVISIONS
Design	Drawn	Checked	Date Initial Issue Date:
KEL	KEL	DBS	JULY 2010

REGISTERED 263
David D. Haynes
OREGON
10/12/89
LANDSCAPE ARCHITECT

West Linn
City of Villa, Trees and Rivers
City of West Linn Parks and Recreation
22500 Salamo Road
West Linn, OR 97068
Phone 503-657-0331

Bid Drawings - July 2, 2010

MARYLHURST PARK PHASE I

ROUGH GRADING PLAN
AREA 2

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Lake Oswego, Oregon 97035
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15722 L722G002
Project No. Drawing No

L2.02
Sheet No

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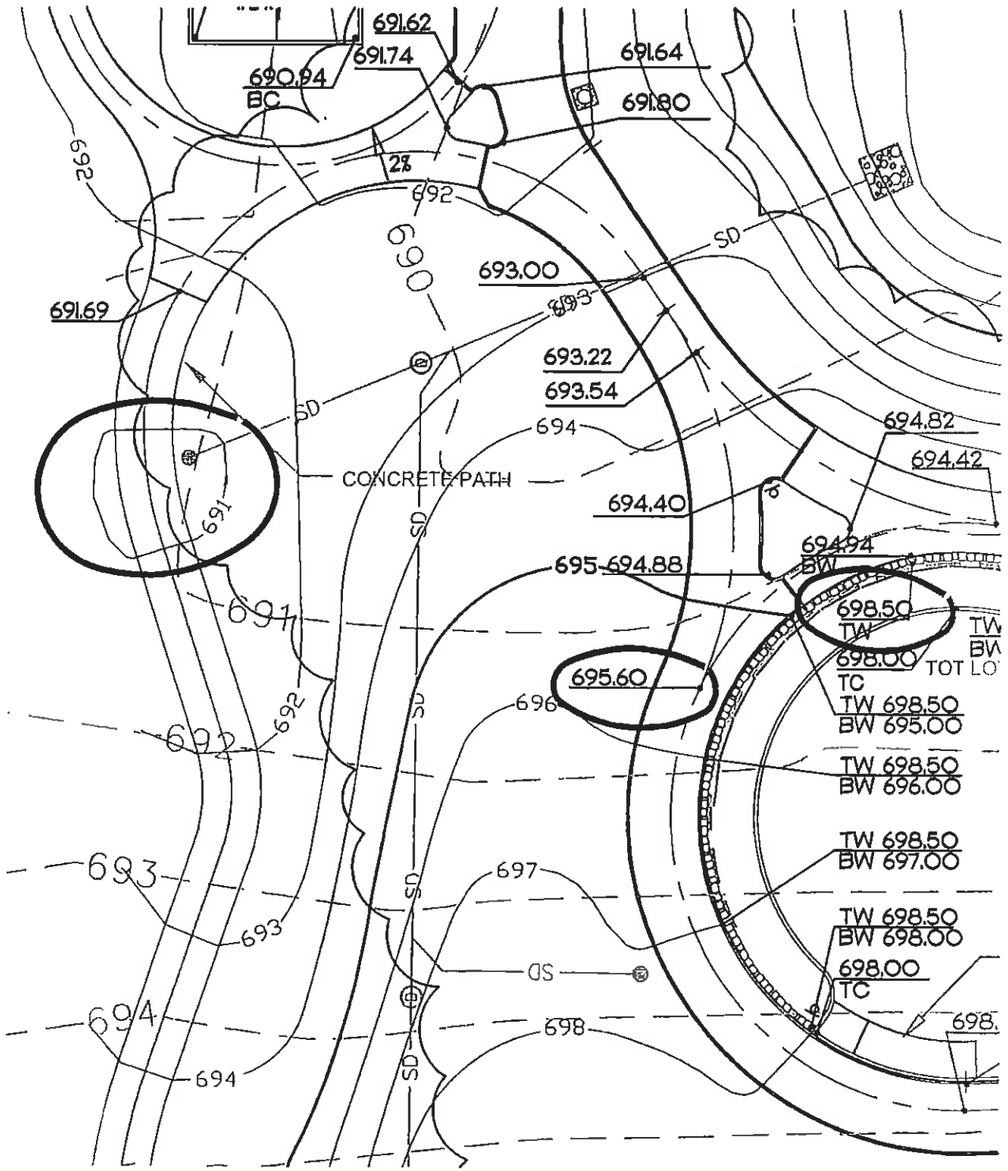
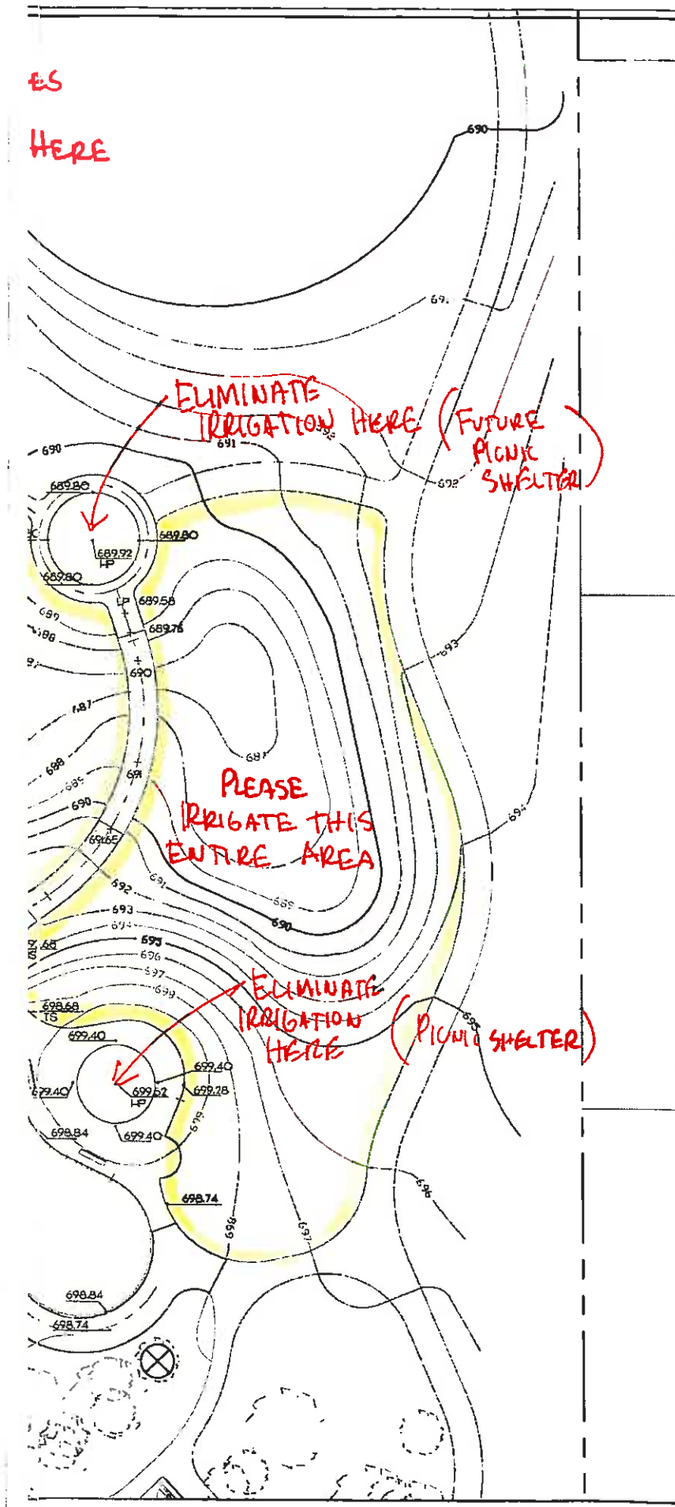


MARYLHURST PARK
GRADING
CLARIFICATION
1"=20' 13 SEP 10

Otak #15722



NOTES:

1.) SEE CIVIL DRAWING FOR UTILITY LOCATIONS.

LEGEND

AD	AREA DRAIN
CB	CATCH BASIN
TC	TOP CURB
BC	BOTTOM CURB
TW	TOP WALL
BW	BOTTOM WALL
TS	TOP STEP
BS	BOTTOM STEP
HP	HIGH POINT
LP	LOW POINT
⊗	REMOVE TREE

EXISTING CONTOURS
—163— PROPOSED 1 FOOT CONTOURS
—165— PROPOSED 5 FOOT CONTOURS

0' 10' 20' 40'

Bid Drawings – July 2, 2010

MARYLHURST PARK PHASE I

FINE GRADING PLAN

REGISTERED 263 David D. Hopkins OREGON 10-12-09 LANDSCAPE ARCHITECT

West Linn

City of West Linn Parks and Recreation
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Phone 503-657-0331

otak Incorporated
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15722 L722G003
Project No. Drawing No.

L2.03
Sheet No.

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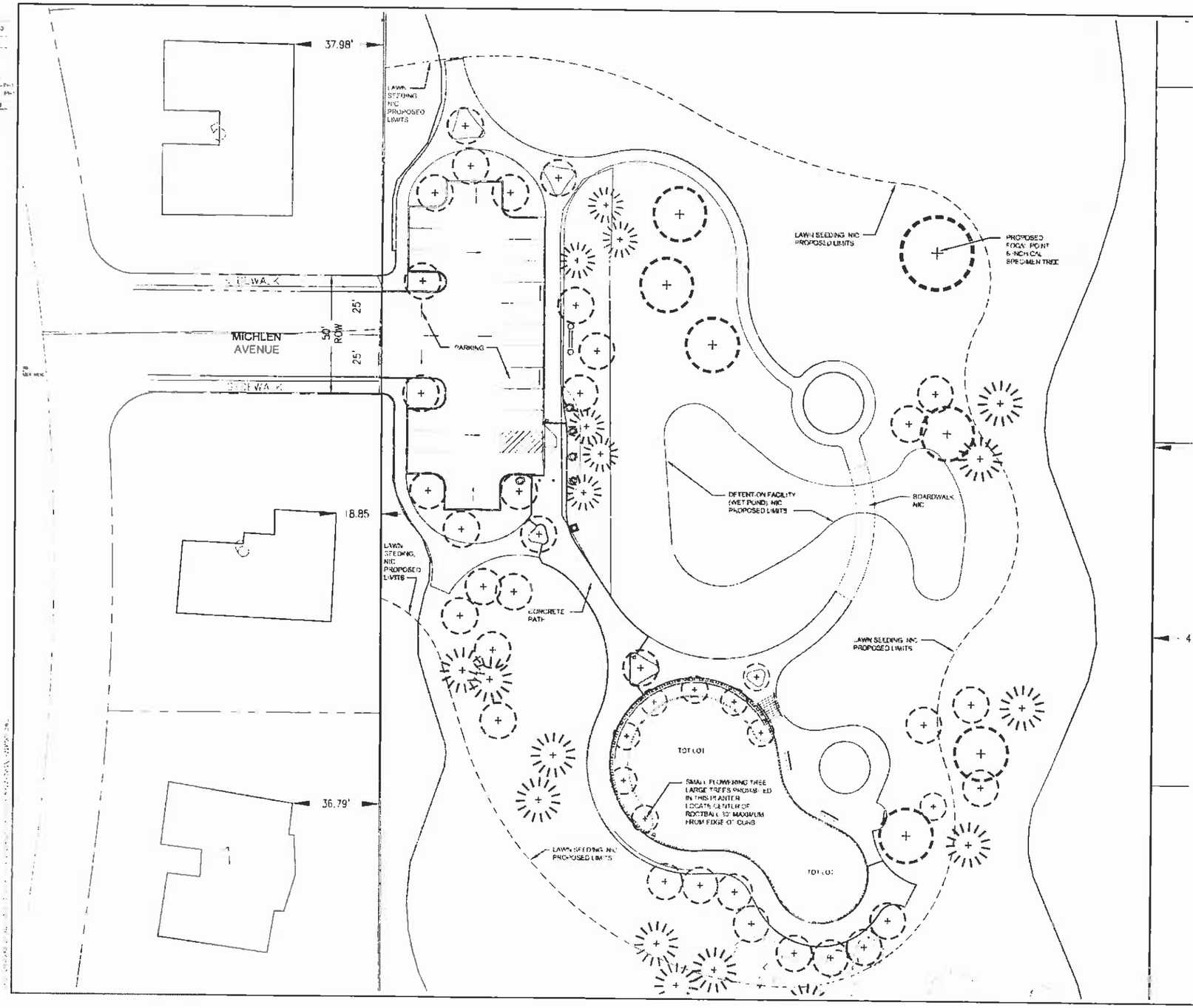
Design	Drawn	Checked	Date	Initial Issue Date:
KEL	KEL	DDS		J.R.Y 2010

No.	DATE	BY	REVISION SUMMARY



LEGEND

PROPOSED DECIDUOUS TREE BY CITY (NIC)

PROPOSED CONIFEROUS TREE BY CITY, (NIC)

NOTES:

1. BUILDINGS OUTSIDE THE PROJECT SITE BOUNDARY HAVE BEEN APPROXIMATED FROM A 2006 1/2 FOOT AERIAL PHOTO
2. FENCES ARE APPROXIMATED FROM VISUAL SURVEY IN THE FIELD
3. ALL LANDSCAPE AREAS SHALL BE WATERED BY A FULLY AUTOMATIC UNDERGROUND IRRIGATION SYSTEM (ADDITIVE ALTERNATE NO. 1)

0' 10' 20' 40'

Bid Drawings – July 2, 2010

REGISTERED LANDSCAPE ARCHITECT OREGON David D. Haynes 263

West Linn

City of West Linn, Parks and Recreation
22500 Salamo Rd.
West Linn, OR 97068
Phone 503-657-0331

MARYLHURST PARK PHASE I

PROPOSED PLANTING LAYOUT

otak

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Phone (503) 635-3618
FAX (503) 635-5395
Internet www.otak.com

Project No. Drawing No.
L3.01

STORM DRAIN CONSTRUCTION NOTES

1. INSTALL SDMH #2 PER DETAIL WL-207, SHEET L5.07 (W/ TAMPER PROOF LID)
   N = 4546.58
   E = 4958.80
   RIM = 695.50
   IE IN (8" SE) = 685.91
   IE OUT (8" N) = 685.71
2. INSTALL SDMH #3 PER DETAIL WL-207, SHEET L5.07 (W/ TAMPER PROOF LID)
   N = 4887.71
   E = 4968.86
   RIM = 679.00
   IE IN (8" S) = 673.50
   IE IN (8" SE) = 673.50
   IE OUT (8" N) = 673.30
3. INSTALL SDMH #4 PER DETAIL WL-208, SHEET L5.07 (FLAT TOP W/ TAMPER PROOF LID)
   N = 4991.66
   E = 4968.68
   RIM = 671.00
   IE IN (8" S) = 666.16
   IE OUT (12" NW) = 665.96
4. INSTALL SDMH #5 PER DETAIL WL-208, SHEET L5.07 (FLAT TOP W/ STANDARD 16-HOLE LID)
   N = 5037.69
   E = 4927.95
   RIM = 670.15
   IE IN (12" SE) = 665.65
   IE OUT (12" W) = 665.45
5. INSTALL SDMH #6 PER DETAIL WL-207, SHEET L5.07 (W/ STANDARD 16-HOLE LID)
   N = 5040.21
   E = 4835.01
   RIM = 672.30
   IE IN (12" E) = 664.99
   IE IN (12" S) = 664.99
   IE OUT (12" N) = 664.79
6. INSTALL 12" DIP STORM DRAIN PER DETAILS WL-200 AND WL-203, SHEET L5.07 (CLASS "B" BACKFILL). INSTALL UNDER EXISTING GAS LINE AT CROSSING
7. STORM CULVERT OUTFALL
   IE OUT (12") = 664.35
   ADJUST ROCK LINED DITCH AS NEEDED TO PROMOTE POSITIVE DRAINAGE
8. INSTALL STANDARD DITCH INLET PER DETAIL WL-603, SHEET L5.08
   N = 4841.62
   E = 5021.57
   RIM (AT FLOWLINE) = 682.50
   IE IN (4" SE) = 678.77
   IE OUT (8" NE) = 678.24
9. INSTALL 12" DIP STORM DRAIN PER DETAILS WL-200 AND WL-203, SHEET L5.07 (CLASS "B" BACKFILL)
10. INSTALL 12" DIP STORM DRAIN PER DETAILS WL-200 AND WL-203, SHEET L5.07 (CLASS "B" BACKFILL)
11. INSTALL INFILTRATION RAIN GARDEN (TYPE 1) PER DETAIL WL-617A, SHEET L5.09

NOTE

1. USE CLASS "B" BACKFILL IN ALL PAVED AREAS
   USE CLASS "A" BACKFILL IN ALL UNPAVED AREAS

BASIS OF BEARINGS

A LINE BEARING S73°57'59"E, LENGTH = 101.11 BETWEEN TWO FOUND MONUMENTS IN VALLEY VIEW DRIVE

MONUMENT #1 N = 5052.94
E = 4854.85
MONUMENT #2 N = 5025.02
E = 4952.03

0' 15' 30' 60'

Bid Drawings – July 2, 2010

1	8/27	BDS	STORM SYSTEM REVISIONS
		DBS	JULY 2010

REGISTERED PROFESSIONAL ENGINEER 51051PE OREGON DARRIN B STAIRS EXPIRES JUNE 30, 2010

West Linn
City of Hills, Trees and Rivers
City of West Linn Parks and Recreation
22500 Salamo Road
West Linn, OR 97068
Phone 503-657-0331

MARYLHURST PARK PHASE I

STORM DRAIN PLAN
AREA 1

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FAX (503) 635-5395
Internet www.otak.com

15722 L722U001
Project No Drawing No

L4.01
Sheet No

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L245X001
L245x430-PH1
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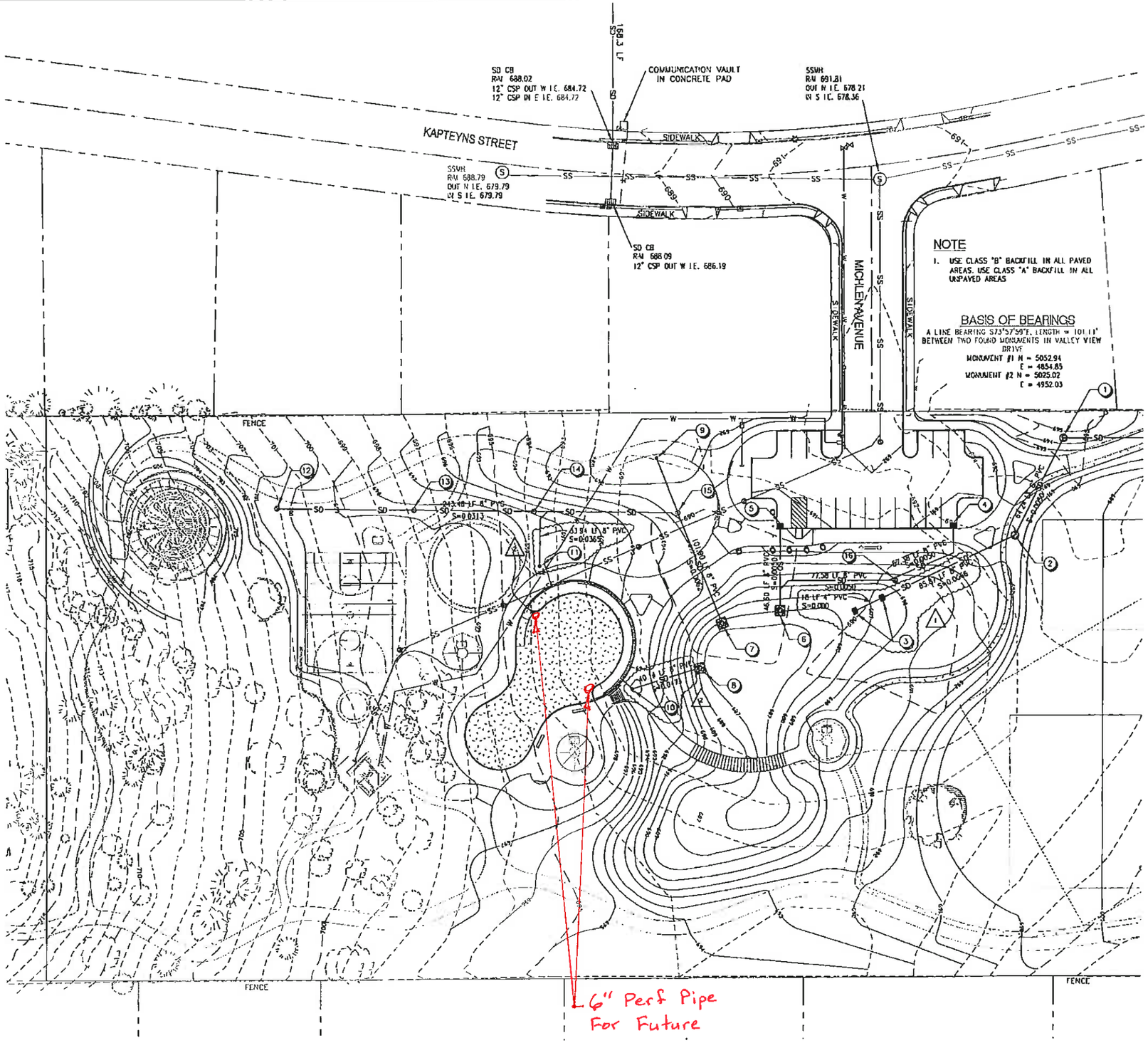

NOTE

1. USE CLASS "B" BACKFILL IN ALL PAVED AREAS. USE CLASS "A" BACKFILL IN ALL UNPAVED AREAS

BASIS OF BEARINGS

A LINE BEARING S73°52'59"E, LENGTH = 101.11' BETWEEN TWO FOUND MONUMENTS IN VALLEY VIEW DRIVE

MONUMENT #1 N = 5052.94
E = 4854.85
MONUMENT #2 N = 5025.02
E = 4952.03

STORM DRAIN CONSTRUCTION NOTES

1. INSTALL SDMH #2 PER DETAIL WL-207, SHEET L5.07
SEE SHEET L4.01

2. INSTALL SDMH #1 PER DETAIL WL-207, SHEET L5.07
W/ TAMPER PROOF LID
N = 4517.06
E = 5025.85
RIM = 692.50
IE IN (8" SE) = 686.43
IE OUT (8" NW) = 686.23

3. INSTALL STANDARD DETENTION POND OUTLET PER DETAILS WL-610 AND WL-611, SHEET L5.08
UPPER BOX:
N = 4439.32
E = 5062.33
RIM (AT FLOWLINE) = 689.50
IE 2" DIAMETER ORIFICE = 687.10
IE OUT (8" NW) = 687.00
LOWER BOX:
N = 4422.95
E = 5070.01
RIM (AT FLOWLINE) = 688.50
IE OUT (4" NW) = 687.10

4. INSTALL METAL TRAPPED CATCH BASIN PER DETAIL 5, SHEET L5.08
N = 4481.10
E = 5020.06
RIM = 690.60
IE OUT (8"S) = 688.93

5. INSTALL METAL TRAPPED CATCH BASIN PER DETAIL 5, SHEET L5.08
N = 4376.74
E = 5020.66
RIM = 690.50
IE OUT (8"E) = 688.42

6. STORM DRAIN OUTFALL
INSTALL 6' x 6' ROCK RIPRAP DISSIPATION PAD (NO HEADWALL)
N = 4376.71
E = 5066.65
IE OUT = 688.19

7. STORM DRAIN OUTFALL
INSTALL 6' x 6' ROCK RIPRAP DISSIPATION PAD (NO HEADWALL)
N = 4341.08
E = 5074.23
IE OUT = 688.50

8. STORM DRAIN OUTFALL
INSTALL 6' x 6' ROCK RIPRAP DISSIPATION PAD (NO HEADWALL)
N = 4326.02
E = 5104.09
IE OUT = 688.50

9. INSTALL AREA DRAIN PER DETAIL 6, SHEET L5.01
N = 4302.59
E = 4979.93
RIM = 690.80
IE OUT (8" NE) = 689.13

10. INSTALL AREA DRAIN PER DETAIL 8, SHEET L5.01
CONNECT 4" RETAINING WALL DRAIN
N = 4287.53
E = 5115.50
RIM = 693.40
IE OUT (N) = 690.40

11. INSTALL AREA DRAIN PER DETAIL 6, SHEET L5.01
N = 4231.36
E = 5043.06
RIM = 697.20
IE OUT (W) = 692.70
CONNECT TO MAINLINE WITH A "WYE" CONNECTION

12. INSTALL STORM DRAIN CLEANOUT #1
PER DETAIL WL-206, SHEET L5.07
N = 4075.14
E = 5008.83
RIM = 701.50
IE OUT (8" N) = 696.50

13. INSTALL STORM DRAIN CLEANOUT #2
PER DETAIL WL-206, SHEET L5.07
N = 4156.15
E = 5009.93
RIM = 698.50
IE OUT (8") = 693.96

14. INSTALL STORM DRAIN CLEANOUT #3
PER DETAIL WL-206, SHEET L5.07
N = 4228.13
E = 5010.90
RIM = 696.50
IE OUT (8") = 691.71

15. INSTALL STORM DRAIN CLEANOUT #4
PER DETAIL WL-206, SHEET L5.07
N = 4345.71
E = 5012.09
RIM = 693.50
IE OUT (8") = 688.91

16. INSTALL STORM DRAIN CLEANOUT #5
PER DETAIL WL-206, SHEET L5.07
N = 4446.80
E = 5052.09
RIM = 690.60
IE OUT (8") = 688.60

0' 15' 30' 60'

Bid Drawings - July 2, 2010

NO.	DATE	BY	REVISION COMMENTS
3	9/13	BDS	STORM SYSTEM REVISIONS
2	8/27	BDS	STORM SYSTEM REVISIONS
1			

Design	Drawn	Checked	Date	Initial Issue Date:
BDS	HOP	DBS		JULY 2010

REGISTERED PROFESSIONAL ENGINEER 81081PE OREGON DARRIN B. STARKS EXPIRES JUNE 30, 2010

City of West Linn
"City of Villas, Towns and Forests"
City of West Linn Parks and Recreation
22500 Salamo Road
West Linn, OR 97068
Phone: 503-657-4237

MARYLHURST PARK PHASE I

STORM DRAIN PLAN
AREA 2

otak Incorporated
17355 SW Boones Ferry Rd.
Lake Oswego, Oregon 97035
Phone: (503) 635-3618
FAX: (503) 635-5395
Internet: www.otak.com

15722 L722U002
Project No. Drawing No.
L4.02
Sheet No.

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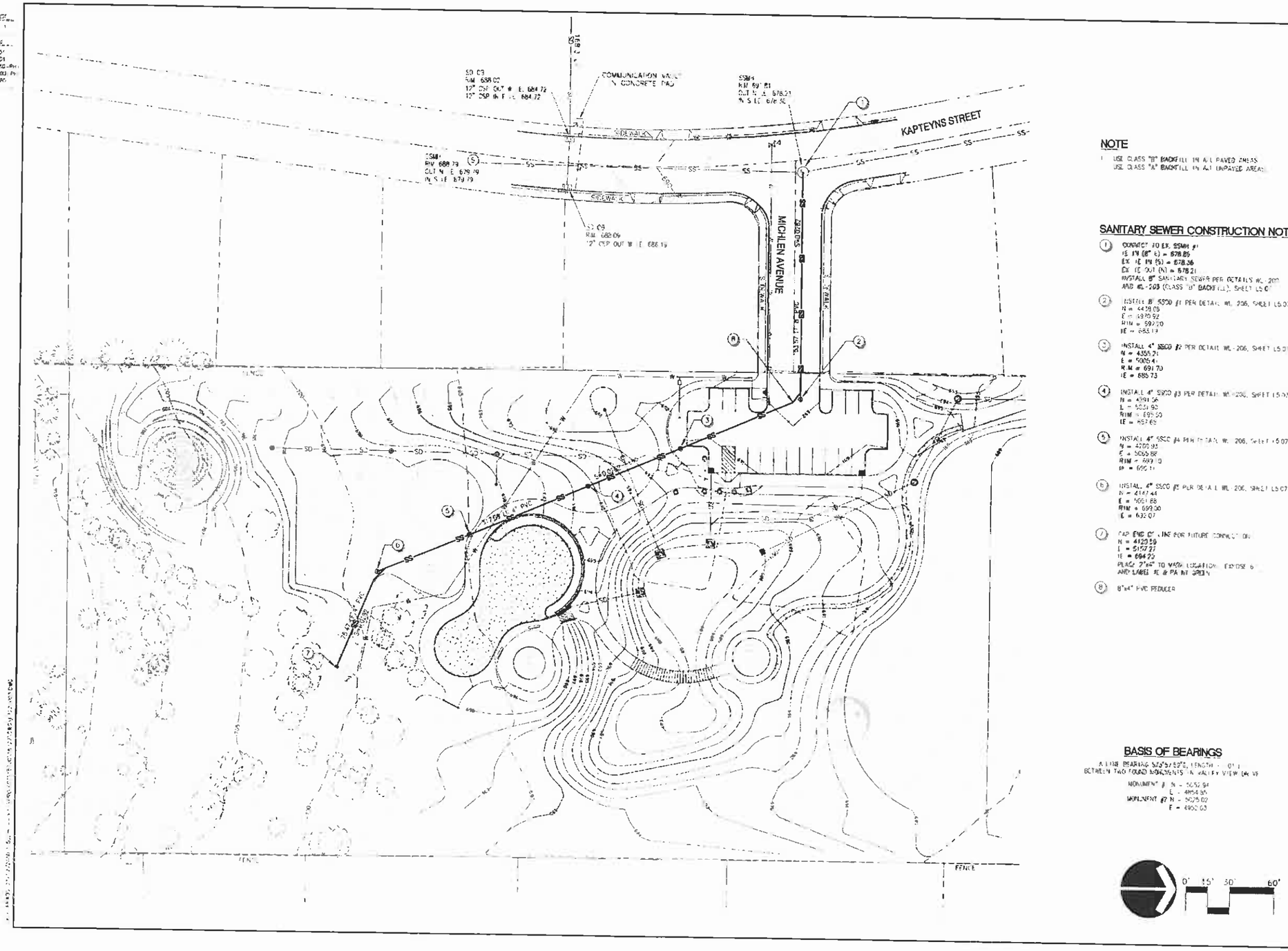

NOTE

1. USE CLASS "B" BACKFILL IN ALL PAVED AREAS
   USE CLASS "A" BACKFILL IN ALL UNPAVED AREAS

SANITARY SEWER CONSTRUCTION NOTES

1. CONNECT TO EX. SSMH #1
   IE IN (8" E) = 678.85
   EX. IE IN (S) = 678.36
   EX. IE OUT (N) = 678.21
   INSTALL 8" SANITARY SEWER PER DETAILS WL-200 AND WL-203 (CLASS "B" BACKFILL), SHEET L5.07
2. INSTALL 8" SSCO #1 PER DETAIL WL-206, SHEET L5.07
   N = 4439.05
   E = 4970.92
   RIM = 692.20
   IE = 683.19
3. INSTALL 4" SSCO #2 PER DETAIL WL-206, SHEET L5.07
   N = 4356.24
   E = 5005.41
   RIM = 691.70
   IE = 685.73
4. INSTALL 4" SSCO #3 PER DETAIL WL-206, SHEET L5.07
   N = 4291.56
   E = 5021.90
   RIM = 695.50
   IE = 687.65
5. INSTALL 4" SSCO #4 PER DETAIL WL-206, SHEET L5.07
   N = 4200.95
   E = 5055.88
   RIM = 699.10
   IE = 690.11
6. INSTALL 4" SSCO #5 PER DETAIL WL-206, SHEET L5.07
   N = 4147.44
   E = 5061.88
   RIM = 699.00
   IE = 692.07
7. CAP END OF LINE FOR FUTURE CONNECTION
   N = 4120.59
   E = 5157.27
   IE = 694.29
   PLACE 2"x4" TO MARK LOCATION. EXPOSE 6" AND LABEL IE @ PA INT SHEET
8. 8"x4" PVC REDUCER

BASIS OF BEARINGS

A LINE BEARING S73°51'53"E, LENGTH = [illegible] BETWEEN TWO FOUND MONUMENTS IN VALLEY VIEW DR VI

MONUMENT #1 N = 5052.94
E = 4954.95
MONUMENT #2 N = 5025.02
E = 4952.03

0' 15' 30' 60'

Bid Drawings – July 2, 2010

MARYLHURST PARK PHASE I

SANITARY SEWER PLAN
AREA 2

otak Incorporated
17005 SW Upper Boones Ferry Rd
Lake Oswego, Oregon 97035
Phone (503) 635-3486
FAX (503) 635-3087
Internet www.otak.com

Project No 15122 Drawing No L4.03
Sheet No

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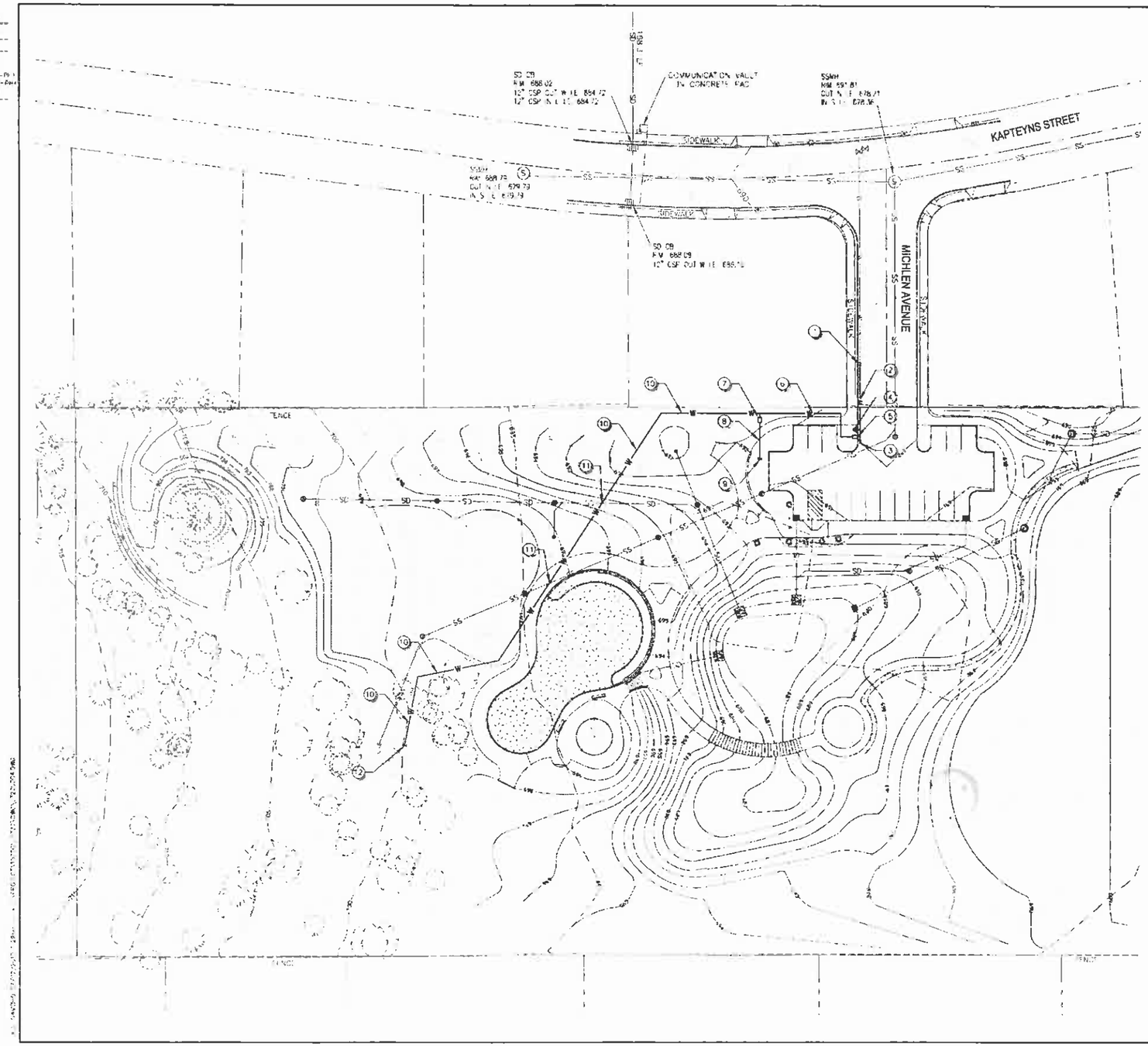
REGISTERED PROFESSIONAL ENGINEER 51051PE OREGON
DERRICK W. STONE
EXPIRES: 12/31/10

City of Hillsboro Public Works
Engineering Services
150 E. Main St.
Hillsboro, OR 97123
Phone: 503.681.6100

No	Date	By	Revision Description

Drawn: [illegible] Checked: [illegible] Date: [illegible]



NOTE

1. USE CLASS "B" BACKFILL IN ALL PAVED AREAS
   USE CLASS "A" BACKFILL IN ALL UNPAVED AREAS

WATER CONSTRUCTION NOTES

1. REMOVE & RELOCATE EX. BLOWOFF AND CONNECT TO EX. 6" WATER LINE. INSTALL STANDARD SADDLE BLOCK PER DETAIL WL-408, SHEET L5.09
2. INSTALL 40 LF OF 6" DIP WATER MAIN PER DETAILS WL-200 AND WL-202, SHEET L5.07 (CLASS "B" BACKFILL)
3. RELOCATE STANDARD 2" BLOWOFF ASSEMBLY PER DETAIL WL-404A, SHEET L5.09
   N = 4418.23
   E = 4973.07
4. INSTALL STANDARD FIRE HYDRANT ASSEMBLY PER DETAIL WL-401, SHEET L5.09
   N = 4413.06
   E = 4966.59
5. INSTALL STANDARD 1-1/2" SINGLE WATER SERVICE PER DETAIL WL-402, SHEET L5.09
   N = 4413.06
   E = 4971.59
6. INSTALL 1-1/2" PVC WATER LINE. MAINTAIN MIN. 36" COVER
7. INSTALL 1-1/2" DOUBLE CHECK BACKFLOW PREVENTOR PER DETAIL 4, SHEET L5.06
   N = 4345.06
   E = 4966.77
8. INSTALL 2-1/2" IRRIGATION PVC WATER LINE. MAINTAIN 36" MIN. COVER
9. CAP IRRIGATION WATER LINE FOR FUTURE CONNECTION
   N = 4354.05
   E = 4984.86
   PLACE 2"x4" TO MARK LOCATION. EXPOSE 6", LABEL AS "IRRI" AND PAINT BLUE
10. INSTALL 1" DOMESTIC PVC WATER LINE. MAINTAIN 36" COVER. COORDINATE LOCATION WITH LANDSCAPE PLANS TO AVOID TREES
11. MAINTAIN MIN. 18" CLEARANCE BETWEEN WATER LINE AND SANITARY SEWER AND STORM DRAIN AT CROSSINGS
12. CAP DOMESTIC WATER LINE FOR FUTURE CONNECTION
    N = 4336.25
    E = 5157.89
    PLACE 2"x4" TO MARK LOCATION. EXPOSE 6". LABEL AS "DOM WATER" AND PAINT BLUE

BASIS OF BEARINGS

A LINE BEARING S23°57'59"E, LENGTH = 10.11' BETWEEN TWO FOUND MONUMENTS IN VALLEY VIEW SUBDIVISION

MONUMENT #1 N = 5066.94
E = 4954.85
MONUMENT #2 N = 5028.92
E = 4965.03

0' 15' 30 60

Bid Drawings – July 2, 2010

MARYLHURST PARK PHASE I

WATER PLAN
AREA 2

otak Incorporated
17355 SW Boones Ferry Rd.
Lake Oswego, Oregon 97035
Phone (503) 635-3618
FAX (503) 635-5315
Internet www.otak.com

15722 722-10.04
Project No. Drawing No.
L4.04
Sheet 10
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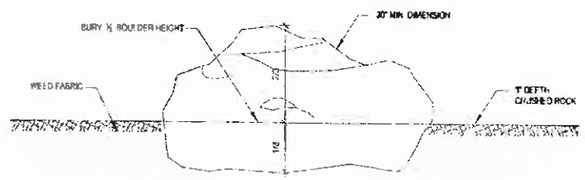
REGISTERED PROFESSIONAL ENGINEER
51063PE
OREGON
FABIAN B. STATON
EXPIRES JAN. 31, 2012

No.	Date	By	Revision Description

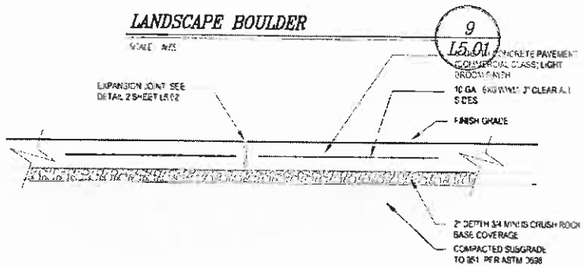
DATE: 7-2-10

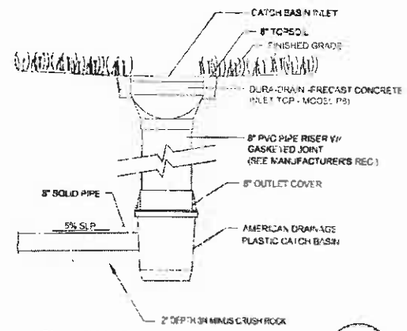


LANDSCAPE BOULDER

SCALE: N/S

9 / L5.01

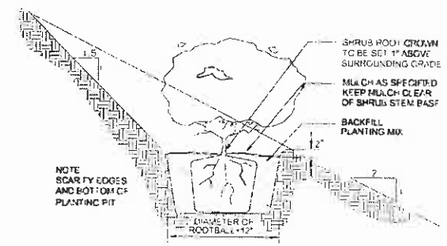




AREA DRAIN

SCALE: N/S

6 / L5.01



SECTION – PLANTING ON SLOPE

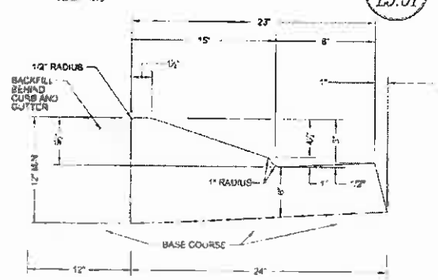
SCALE: N/S

3 / L5.01

THICKENED PAVING AT MAINTENANCE VEHICLE ACCESS

SCALE: N/S

8 / L5.01



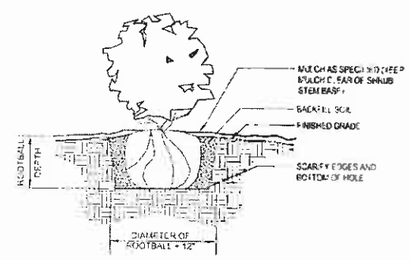
NOTES.

1. This curb design is limited to use in cul-de-sacs and other special circumstances specifically approved by the City Engineer. Weepholes for downspout drain pipes are not allowed with this curb type, but weepholes for vault drain pipes are allowed.
2. Vault drain pipe shall be 3" I.D. plastic pipe with coupling.
3. Concrete to have compressive strength of 4,000 psi at 28 days. Expansion joints to be provided at each:
   a. Point of tangency.
   b. Cold joint.
   c. Side of inlet structures.
   d. Side of driveways.
4. Expansion joint material to be pre-molded, asphalt impregnated, non-extruding, with a thickness of 1/2-inch.
5. Contraction Joints shall have:
   a. Spacing of not more than 15 feet.
   b. Depth of joint of at least 1½-inches.
6. Base Rock 2"-0 or 3/4"-0, 95% (AASHTO T-180) compaction. Base rock shall be to subgrade of street structure or 4-inches,
7. whichever is greater, and shall extend 12-inches behind the curb.

ROLLED CURB AT MAINTENANCE VEHICLE ACCESS

SCALE: N/S

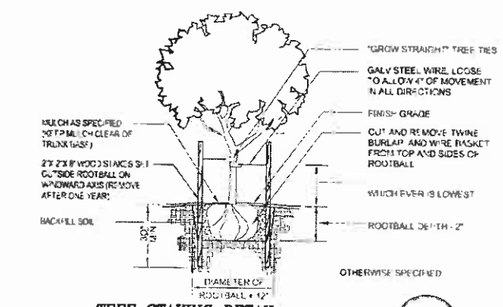
7 / L5.01



SHRUB PLANTING DETAIL

SCALE: N/S

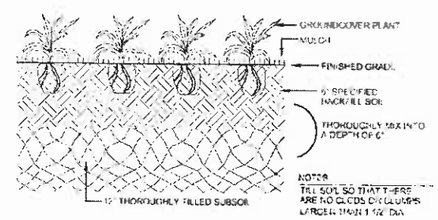
5 / L5.01



TREE STAKING DETAIL

SCALE: N/S

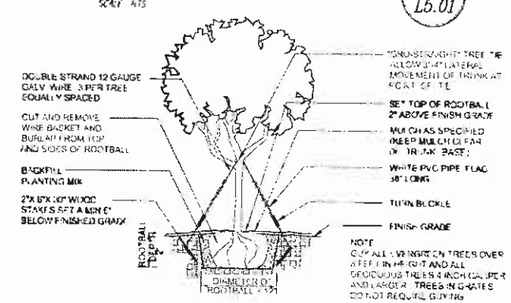
2 / L5.01



GROUNDCOVER PLANTING DETAIL

SCALE: N/S

4 / L5.01



TREE GUYING DETAIL

SCALE: N/S

1 / L5.01

Bid Drawings – July 2, 2010

MARYLHURST PARK PHASE I

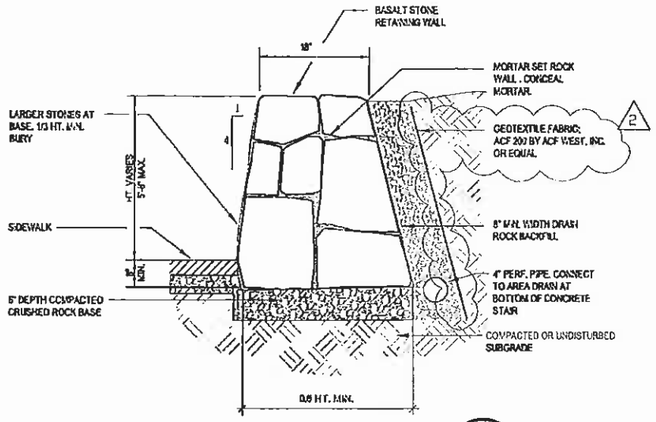
CONSTRUCTION DETAILS

REGISTERED LANDSCAPE ARCHITECT — David D. Haynes — OREGON

West Linn

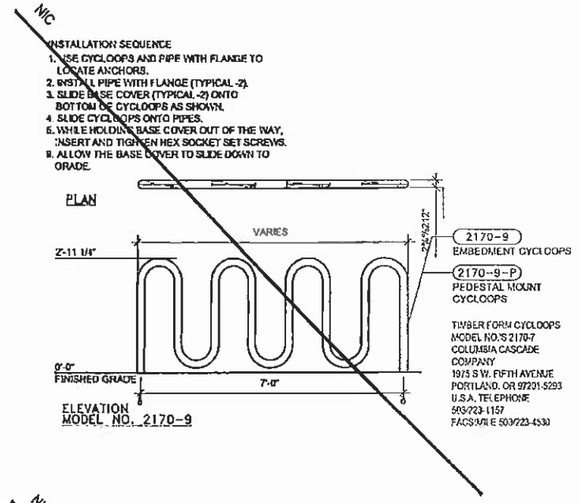
otak Incorporated

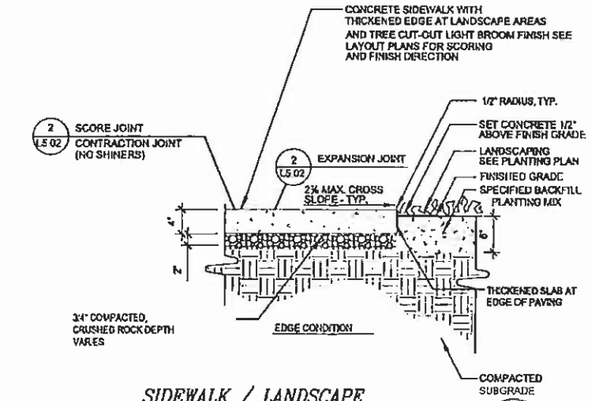
L5.01



STONE RETAINING WALL — 8 / L5.02

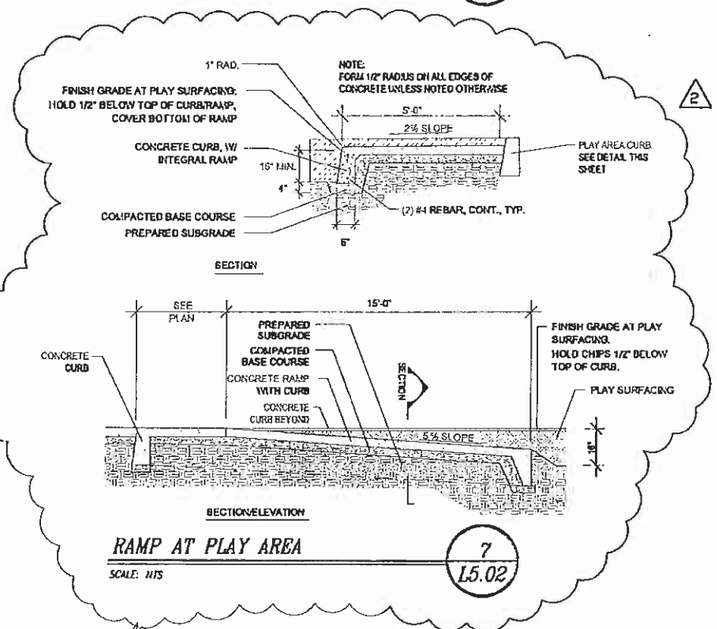
SCALE: NTS





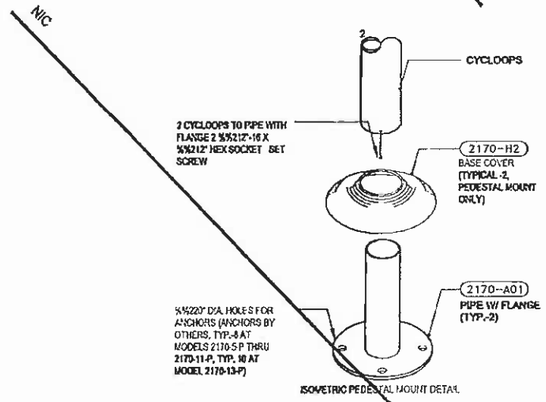
SIDEWALK / LANDSCAPE EDGE — 3 / L5.02

SCALE: NTS



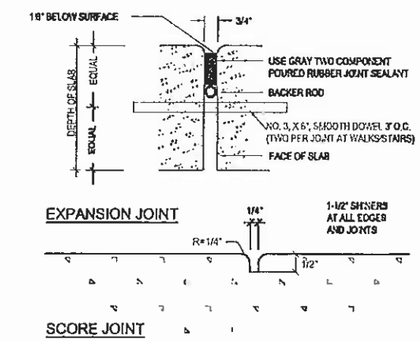
RAMP AT PLAY AREA — 7 / L5.02

SCALE: NTS



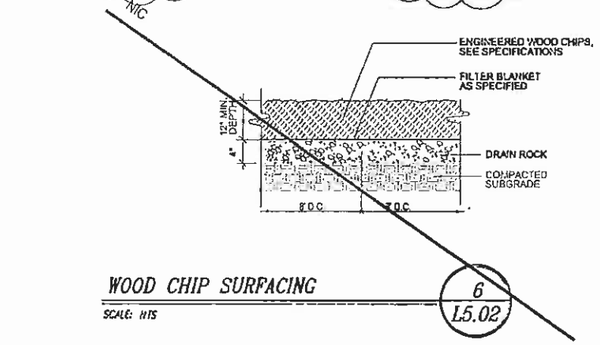
BICYCLE RACK — 5 / L5.02

SCALE: NTS



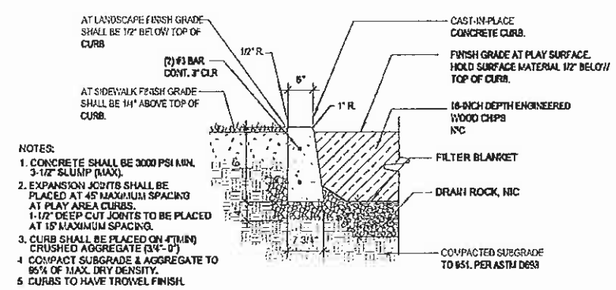
SCORE / EXPANSION JOINT — 2 / L5.02

SCALE: NTS



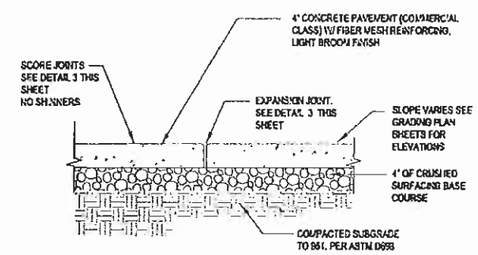
WOOD CHIP SURFACING — 6 / L5.02

SCALE: NTS



PLAY AREA CURB / SURFACE — 4 / L5.02

SCALE: NTS



CONCRETE PAVEMENT — 1 / L5.02

SCALE: NTS

NO.	DATE	BY	REVISION COMMENTS
2	5/13	BDS	STORM SYSTEM REVISIONS
1	5/27	BDS	STORM SYSTEM REVISIONS
Design	Drawn	Checked	Date Issue Date: JULY 2010
	KEL	KEL	DBS

REGISTERED 263 David D. Haynes OREGON 10/12/99 LANDSCAPE ARCHITECT

West Linn
"City of Falls, Trees and Trails"
City of West Linn Parks and Recreation
22500 Salamo Road
West Linn, Oregon 97068
Phone: 503-657-0331

Bid Drawings – July 2, 2010

MARYLHURST PARK PHASE I

CONSTRUCTION DETAILS

otak Incorporated
17355 SW Boones Ferry Rd
Lake Oswego, Oregon 97035
Phone: (503) 635-3618
FAX (503) 635-5395
Internet www.otak.com

15722 L722D002
Project No Drawing No

L5.02
Sheet No.

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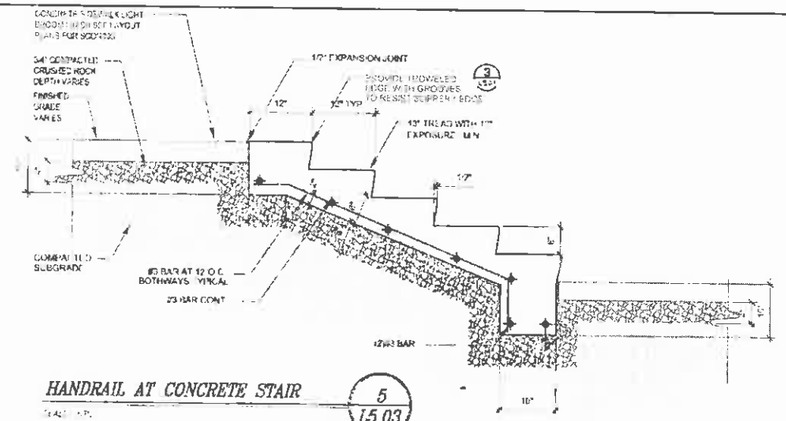
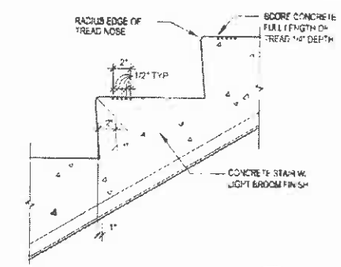
LAYO: DANIEL 07/28/2010 10:02am ---> V:\PROJECT\15700\15722\DWG\L722D002.DWG

Park



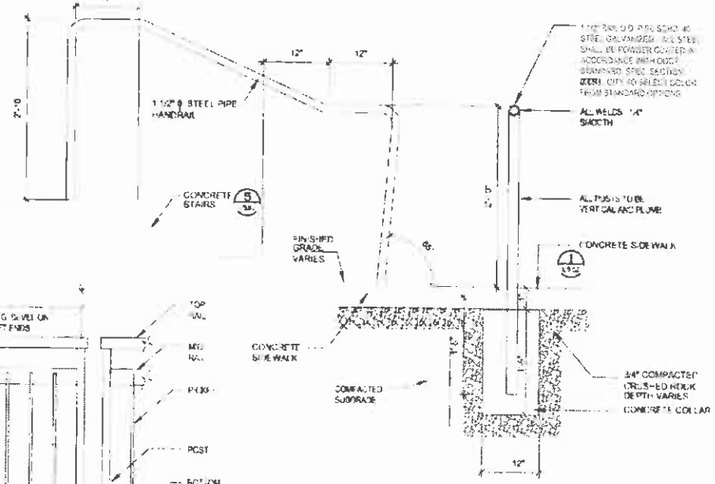
HANDRAIL AT CONCRETE STAIR 5 / L5.03



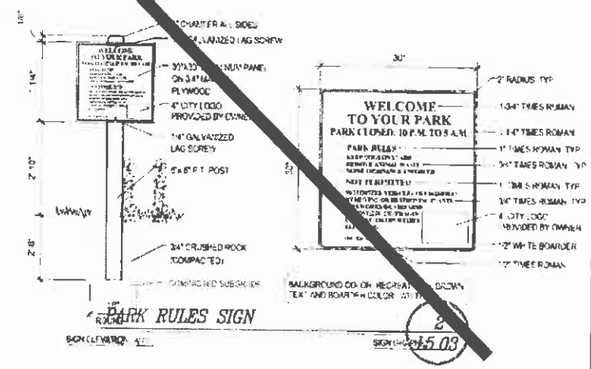
STAIR EDGE TREATMENT 3 / L5.03

REDYCLE DESIGNS 96" PARK BENCH FLAT BENCH WITH ARMS
TRIMAX COLOR: GRAY
POWDERCOAT COLOR: RED
SURFACE MOUNT SEE DETAIL 7/L5.03

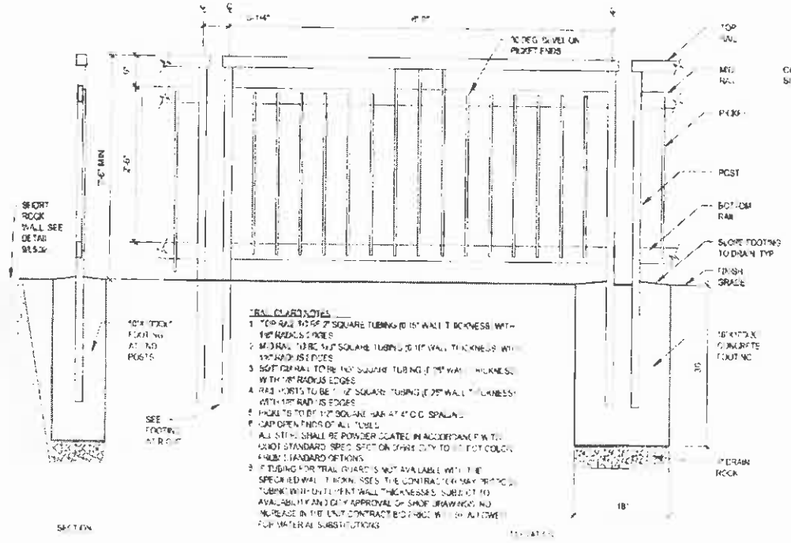
BENCH 7 / L5.03



CONCRETE STAIR 4 / L5.03



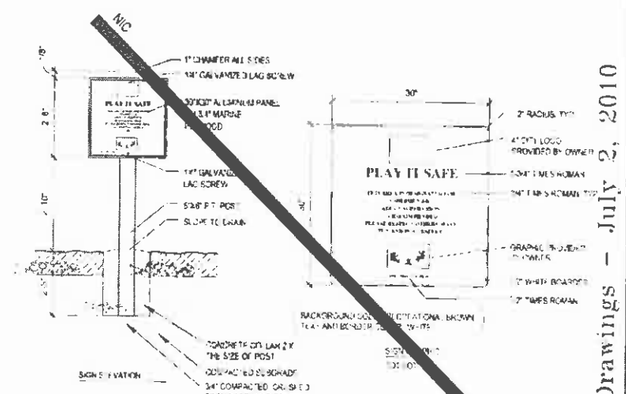
PARK RULES SIGN 2 / L5.03



TRAIL GUARD NOTES

1. TOP RAIL TO BE 2" SQUARE TUBING (0.157" WALL THICKNESS) WITH 1/8" RADIUS EDGES
2. MIDRAIL TO BE 1 1/2" SQUARE TUBING (0.157" WALL THICKNESS) WITH 1/8" RADIUS EDGES
3. SOFFIT RAIL TO BE 1 1/2" SQUARE TUBING (0.157" WALL THICKNESS) WITH 1/8" RADIUS EDGES
4. PAD POSTS TO BE 2" SQUARE TUBING (0.157" WALL THICKNESS) WITH 1/8" RADIUS EDGES
5. PICKETS TO BE 1/2" SQUARE BAR AT 4" O.C. SPACING
6. CAP OPEN ENDS OF ALL TUBES
7. ALL STEEL SHALL BE POWDER COATED IN ACCORDANCE WITH CITY STANDARD SPECS. SPECIFICATION TO BE FOR COLOR FINISH STANDARD OPTIONS
8. IF TUBING FOR TRAIL GUARDS IS NOT AVAILABLE WITH THE SPECIFIED WALL THICKNESS, THE CONTRACTOR MAY PROPOSE TUBING WITH CONTINENT WALL THICKNESSES SUBJECT TO AVAILABILITY AND CITY APPROVAL OF SHOP DRAWINGS. NO INCREASE IN THE UNIT CONTRACT BID PRICE WILL BE ALLOWED FOR MATERIAL SUBSTITUTIONS

GUARDRAIL AT STONE WALL 6 / L5.03



PLAY IT SAFE SIGN 1 / L5.03

REGISTERED 263 David D. Hughes OREGON LANDSCAPE ARCHITECT

West Linn

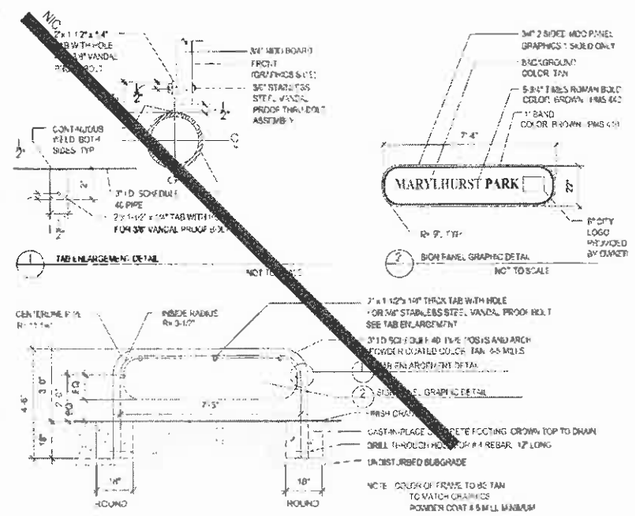
Bid Drawings – July 2, 2010

MARYLHURST PARK PHASE I

CONSTRUCTION DETAILS

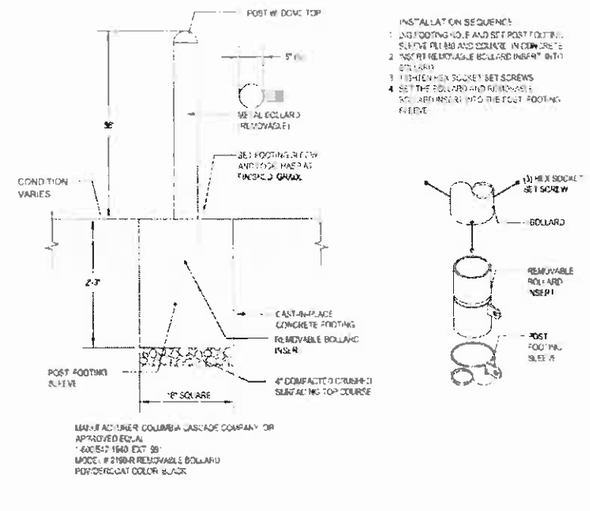
otak Incorporated
17355 SW Boones Ferry Rd
Lake Oswego, Oregon 97035
Phone (503) 635-3618
FAX (503) 635-5591
Internet www.otak.com

Project No. 10200
Drawing No. L5.03



PARK ENTRANCE SIGN

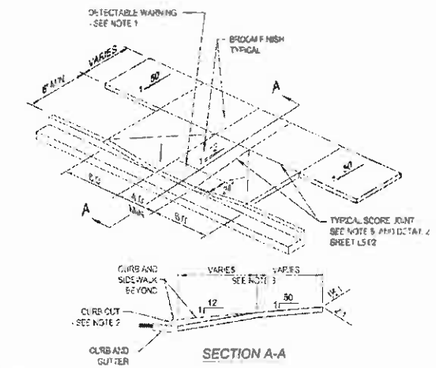
5 / L5.04



REMOVABLE BOLLARD

ADDITIONAL NOTE

4 / L5.04

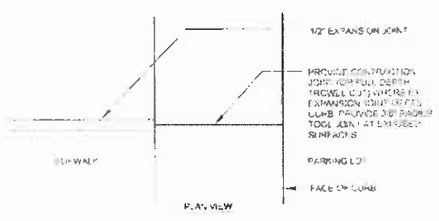


NOTES

1. DETECTABLE WARNING SHALL BE TRUNCATED DOME TYPE 24 INCHES LONG IN DIRECTION OF TRAVEL AND FULL WIDTH OF RAMP. WITH DOMES ALIGNED ON A SQUARE GRID WITH ITS GRID LINES PARALLEL AND PERPENDICULAR TO THE CENTERLINE OF THE RAMP. "ARMOR TILE" CAST IN PLACE TILES*
2. BEVEL THE CURB CUT FROM GUTTER TO BACK OF CURB AT 8.33% (1:12)
3. FOR SIDEWALK WIDTHS, PLANTER STRIP WIDTHS AND SIDEWALK PANEL DIMENSIONS, SEE PLANS
4. CONCRETE TO HAVE COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS
5. SCORE AT GRADE CHANGES, SURFACE TEXTURE CHANGES AND AT OTHER POINTS SHOWN. EDGES SHALL BE SHINED
7. ENGINEER SHALL ACCEPT FULL RESPONSIBILITY FOR CORRECTING ALL UNACCEPTABLE RAMP CONSTRUCTION RESULTING FROM APPLYING THIS DRAWING "AS IS" AND NOT PROVIDING A SITE-SPECIFIC DRAWING FOR EACH RAMP

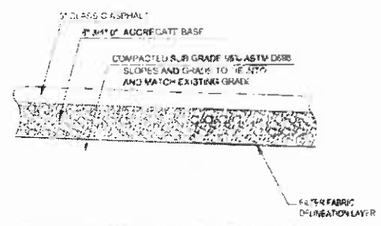
CURB RAMP

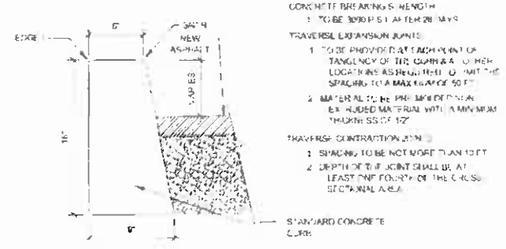
2 / L5.04



EXPANSION JOINT AT CURB

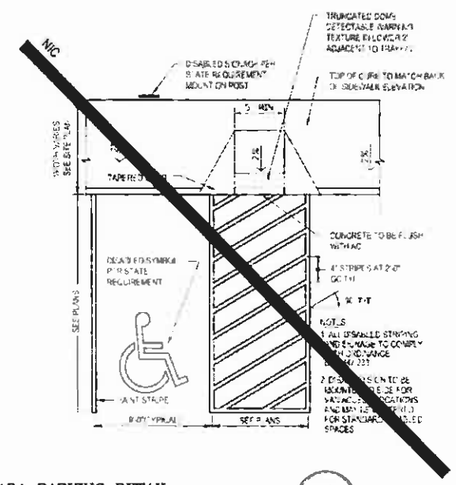
5 / L5.04





STANDARD CURB AND ASPHALT PAVEMENT SECTION

3 / L5.04



ADA PARKING DETAIL

1 / L5.04

Bid Drawings – July 2, 2010

MARYLHURST PARK PHASE I

CONSTRUCTION DETAILS

REGISTERED 263 David D. Hughes OREGON LANDSCAPE ARCHITECT

Westlinn

City of West Linn Parks and Recreation
22500 Salamo Road
West Linn, Oregon 97068
Phone: 503-656-4237

otak Incorporated
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Internet: www.otak.com

Project No. 17322 Drawing No. L5.04

Sheet No.

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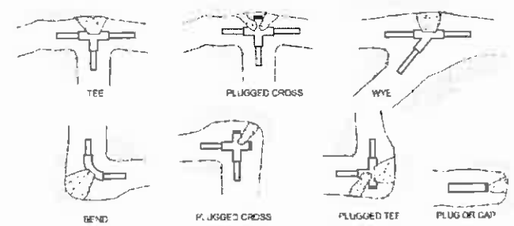
No.	Revision	Date	Drawn	Chkd
1	Issued for Permit	07/02/10	DRS	KJF

BEARING AREA OF THRUST BLOCKS (SQUARE FEET)							
FITTING SIZE	TEE, WYE, PLUG OR CAP	90° BEND, PLUGGED CROSS	TEE, PLUGGED ON RUN		45° BEND	22 1/2° BEND	11 1/2° BEND
			45°	90°			
4"	20	28	36	20	20	10	10
6"	22	66	80	60	42	20	12

NOTE
ABOVE BEARING AREAS BASED ON TEST PRESSURE OF 200 p.s.i AND AN ALLOWABLE SOIL BEARING STRESS OF 1,500 lbs. PER SQUARE FOOT. TO COMPUTE BEARING AREAS FOR DIFFERENT TEST PRESSURES AND SOIL BEARING STRESSES, USE THE FOLLOWING EQUATION: BEARING AREA=(TEST PRESSURE/200)x(1500 SOIL BEARING STRESS)(TABLE VALUE)

NOTES

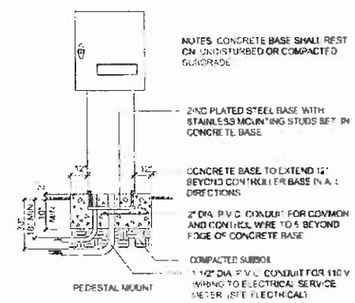
1. CONCRETE THRUST BLOCKING TO BE POURED AGAINST UNDISTURBED EARTH.
2. KEEP CONCRETE CLEAR OF JOINTS AND ACCESSORIES
3. ALL FITTINGS SHALL BE WRAPPED IN 6 MIL PLASTIC PRIOR TO THRUST BLOCK PLACEMENT. MAKING SURE THE BOLTS AND NUTS ARE PROTECTED



THRUST BLOCKS AT MAINLINE

SCALE: N/S

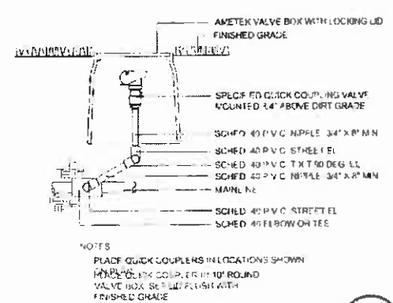
11
L5.05



CONTROLLER PEDESTRAL MOUNTING

SCALE: N/S

10
L5.05



NOTES
PLACE QUICK COUPLERS IN LOCATIONS SHOWN ON PLANS
HOLD QUICK COUPLER 10" ROUND
VALVE BOX SHALL BE FLUSH WITH FINISHED GRADE

QUICK COUPLER ASSEMBLY

SCALE: N/S

9
L5.05

IRRIGATION LEGEND

Symbol	Manufacturer	Description
	RAINBIRD	1800-PRS-8D, 8T, 8H, 8F POP-UP SPRAY SPRINKLERS
	RAINBIRD	1800-PRS-10D, 10T, 10H, 10F POP-UP SPRAY SPRINKLERS
	RAINBIRD	1800-PRS-12D, 12T, 12H, 12F POP-UP SPRAY SPRINKLERS
	WALLA WALLA	MP2000 ADJUSTABLE ARC ROTATOR NOZZLES
	RAINBIRD	1800-PRS-15SST POP-UP SPRAY SPRINKLER
	RAINBIRD	1800-PRS-15RCS POP-UP SPRAY SPRINKLER
	RAINBIRD	1800-PRS-15LCS POP-UP SPRAY SPRINKLER
	WALLA WALLA	MP1000 ADJUSTABLE ARC ROTATOR NOZZLES
	RAINBIRD	5505-SS-10, PART CIRCLE 90/120/180/270 DEG. ARC ROTOR POP-UP SPRINKLERS (60 PSI, ADJUST RADIUS AS REQUIRED)
	RAINBIRD	5505-SS-10, FULL CIRCLE 360 DEG. ARC ROTOR POP-UP SPRINKLER (60 PSI, ADJUST RADIUS AS REQUIRED)
	RAINBIRD	'PEB' SERIES ELECTRONIC CONTROL VALVE (IN VALVE BOX) (ADD PRS-D PRESSURE REGULATING MODULE TO EACH VALVE)
	RAINBIRD	44NP QUICK COUPLER
	FEBCO	850 SERIES 2-1/2" DOUBLE CHECK VALVE ASSEMBLY
C	RAINBIRD	ESP-MC SERIES CONTROLLER SS PEDESTAL MOUNT
		GATE VALVE: BRASS, LINE SIZE (IN VALVE BOX)
POC		POINT OF CONNECTION
		SLEEVES: SCHEDULE 40 PVC, 2X LINE SIZE UNLESS OTHERWISE NOTED.
		LATERAL LINES: CLASS 200 PVC (MIN. 12" COVER)
		MAINLINE: SCHEDULE 40 PVC, 4" SIZE, (MIN. 18" COVER)
		UNCONNECTED PIPE
x		FUTURE CONNECTION. RESERVE X STATIONS ON CONTROLLER AND RUN WIRE TO THIS LOCATION. PROVIDE 3 FEET EXCESS LENGTH OF ALL WIRE, LABEL, NEATLY COIL AND PLACE IN VALVE BOX FOR FUTURE CONNECTION.
58-5 / A15 / 1"FPT		CONTROL VALVE FLAG G.P.M. CONTROLLER DESIGNATION AND VALVE NUMBER VALVE SIZE

IRRIGATION NOTES

1. LOCATE AND VERIFY ALL UTILITY LINES PRIOR TO EXCAVATION OR CONSTRUCTION
2. FIELD VERIFY WORKING WATER PRESSURE. SYSTEM IS DESIGNED TO OPERATE AT 70 PSI AT POINT OF CONNECTION (P.O.C.)
3. PLACE MANUAL DRAIN VALVES AT ALL LOW POINTS OF SYSTEM. A MINIMUM OF ONE DRAIN VALVE ON MAINLINE AND ONE DRAIN VALVE ON LATERAL LINE PER ZONE
4. PIPE SHALL SHARE COMMON TRENCHES WHEREVER POSSIBLE
5. IRRIGATION HEADS IN LAWN AREAS AND ADJACENT TO CURBS AND WALKS SHALL BE 4" POP-UP TYPE, AND ALL SHRUB HEADS SHALL BE 12" POP-UP TYPE
6. SIZE PIPE TO MAINTAIN WATER VELOCITIES OF LESS THAN 5 FEET PER SECOND
7. LOCATE VALVES AT EDGE OF LAWNS AND PLANT BEDS FOR EASY ACCESS
8. SEE SHEET L5.06 FOR IRRIGATION DETAILS.
9. CONTRACTOR TO INSTALL WIRE PULL BOX, PULL WIRE, AND CONNECT TO CONTROLLER. LOCATION CITY TO PROVIDE POWER TO CONTROLLER LOCATION.
10. VERIFY EXACT LOCATION OF OUTDOOR PEDESTAL MOUNT CONTROLLER WITH OWNER'S REPRESENTATIVE
11. STAKE TREE LOCATIONS PRIOR TO HEAD LAYOUT. ADJUST HEADS TO AVOID TREE TRUNKS

IRRIGATION PIPE SIZING SCHEDULE

PIPE SIZE FOR CLASS 200 PVC	GPM FLOW IN PIPE SECTION
1"	0 - 16 GPM
1 1/4"	17 - 26 GPM
1 1/2"	27 - 35 GPM
2"	36 - 55 GPM
2 1/2"	56 - 85 GPM
3"	86 - 120 GPM

LINES ARE TO BE SIZED ACCORDING TO G.P.M. (GALLONS PER MINUTE) DEMAND DOWN LINE AND FLOW VELOCITIES ARE NOT TO EXCEED 5' PER SECOND

(CALCULATE FLOW AT HEADS @ 45 PSI)

VALVE SIZING SCHEDULE

1"	0 - 30 GPM
1 1/2"	30 - 70 GPM
2"	70 - 120 GPM
2 1/2"	na

NOTE: IRRIGATION SYSTEM IS ADDITIVE ALT NO. 1

NO	DATE	BY	REVISION COMMENTS

Design: KEL | Drawn: KEL | Checked: DBS | Date: JULY 2010

REGISTERED 263 David D. Reynolds OREGON LANDSCAPE ARCHITECT

Bid Drawings - July 2, 2010

MARYLHURST PARK PHASE I

IRRIGATION DETAILS

otak Incorporated
17005 SW Bridge Pkwy, Ste
Lake Oswego, Oregon 97035
Phone (503) 635-3618
FAX (503) 635-5395
Internet www.otak.com

JOB NO. 12221.00
Project Info Drawing No.
L5.05
Sheet: Two

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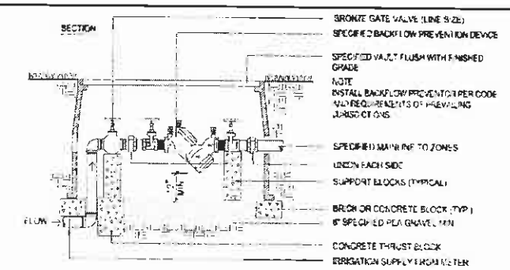
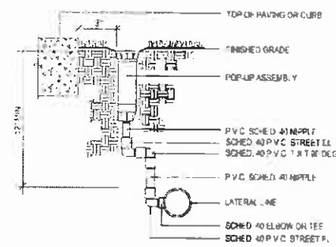
NOTE: IRRIGATION SYSTEM IS ADDITIVE ALT. NO. 1



DOUBLE CHECK BACKFLOW PREVENTOR

SCALE NTS

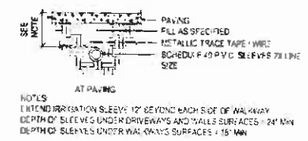
4 / L5.06



LARGE POP-UP ASSEMBLY

SCALE NTS

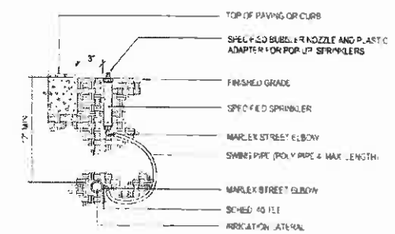
7 / L5.06



IRRIGATION SLEEVES

SCALE NTS

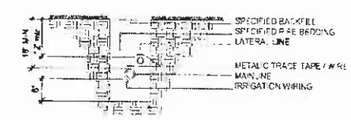
3 / L5.06



SMALL POP-UP WITH BUBBLER AND PLASTIC ADAPTOR

SCALE NTS

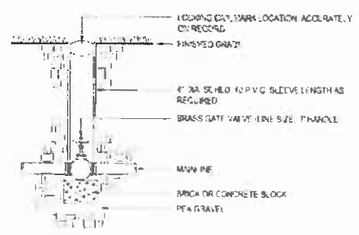
6 / L5.06



TYPICAL TRENCHING

SCALE NTS

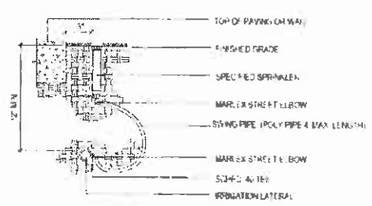
2 / L5.06



GATE VALVE

SCALE NTS

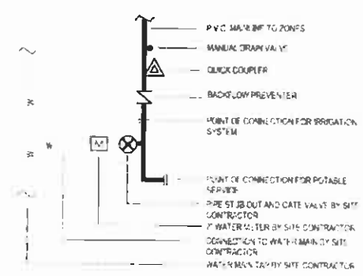
8 / L5.06



SMALL POP-UP ASSEMBLY

SCALE NTS

5 / L5.06



SCHEMATIC POINT OF CONNECTION

SCALE NTS

1 / L5.06

Bid Drawings – July 2, 2010

MARYLHURST PARK PHASE I

IRRIGATION DETAILS

No.	Date	By	Revisions

Drawn By	Checked By	Date	Initial Issue Date
W.E.	W.E.	7-85	JULY 2010

REGISTERED LANDSCAPE ARCHITECT
David D. Haynes
OREGON

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Project No. 17220004
Drawing No. L5.06
Sheet No.

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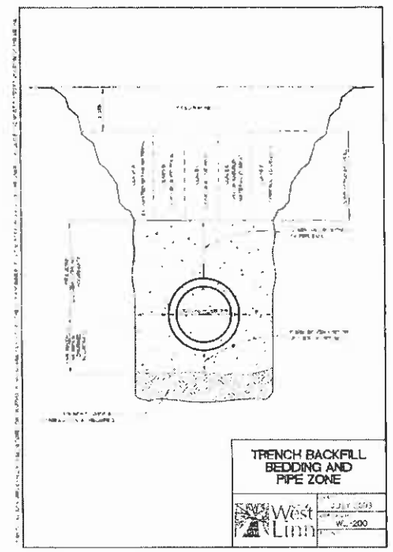
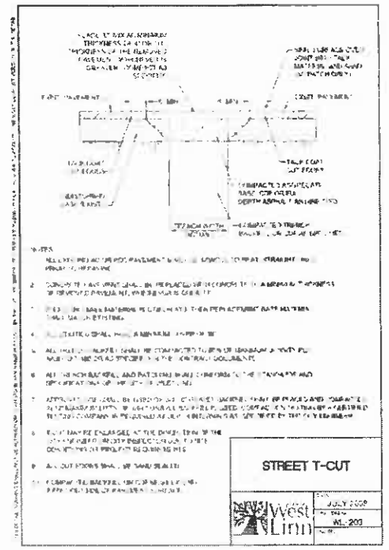


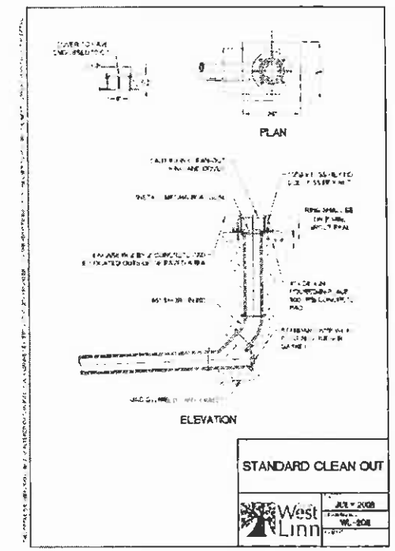
TRENCH BACKFILL
BEDDING AND
PIPE ZONE

West Linn | JULY 2008 | WL-200



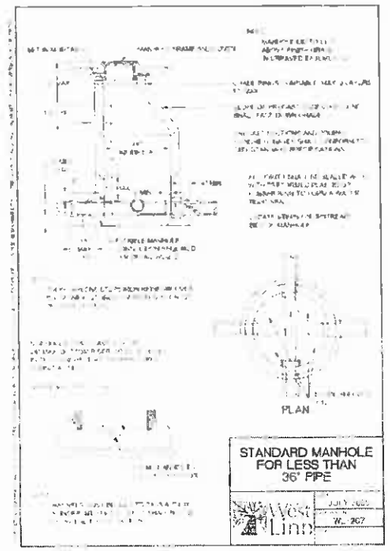
STREET T-CUT

West Linn | JULY 2008 | WL-203



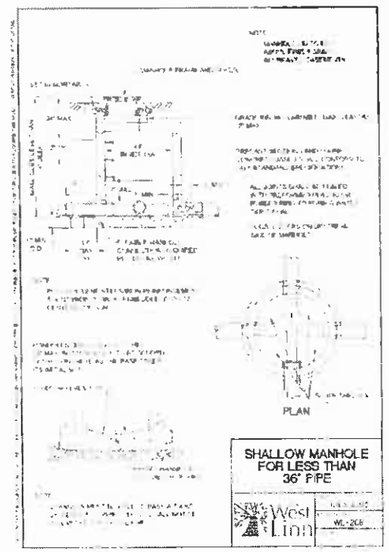
STANDARD CLEAN OUT

West Linn | JULY 2008 | WL-206



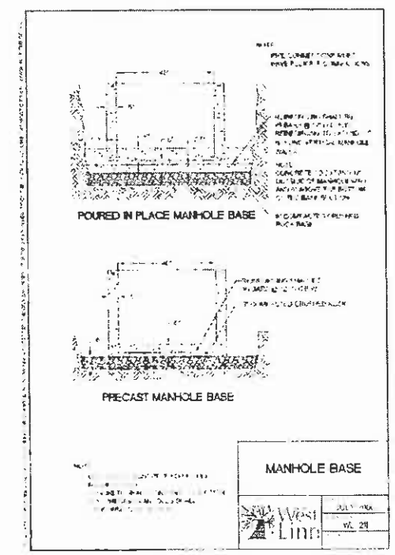
STANDARD MANHOLE
FOR LESS THAN
36" PIPE

West Linn | JULY 2008 | WL-207



SHALLOW MANHOLE
FOR LESS THAN
36" PIPE

West Linn | JULY 2008 | WL-208



MANHOLE BASE

West Linn | JULY 2008 | WL-29

Bid Drawings – July 2, 2010

MARYLHURST PARK PHASE I

CIVIL DETAILS
SANITARY SEWER AND STORM DRAIN SYSTEMS

REGISTERED PROFESSIONAL ENGINEER
DERRIN B. STEVENS
OREGON
EXPIRES JUN. 30, 2012

West Linn
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City of West Linn Public Works
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Internet: www.otak.com

15722 L5.07
Project No. Drawing No.
L5.07
Sheet No.

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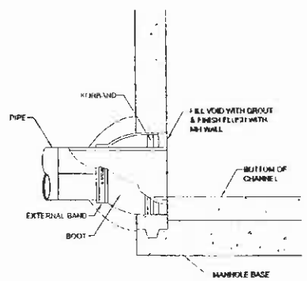
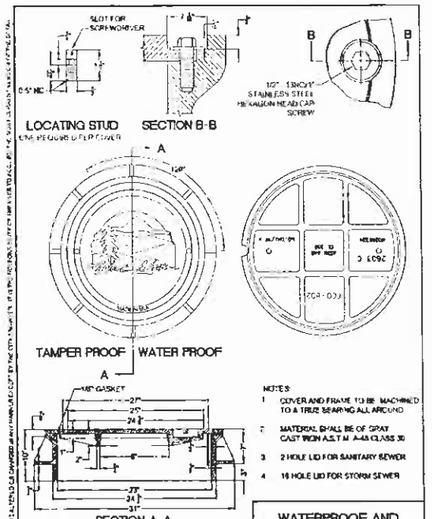


FLEXIBLE MANHOLE CONNECTION
(KOR-N-SEAL OR APPROVED EQUAL)

FLEXIBLE MANHOLE CONNECTION

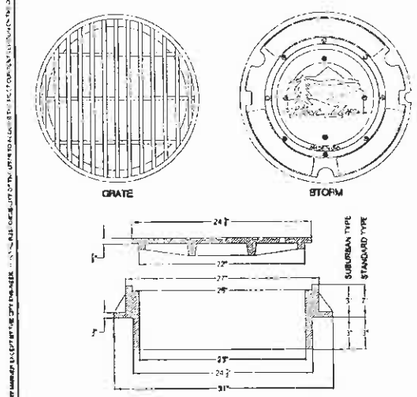
City of West Linn | DATE JULY 2008 | DRAWING NO WL-212 | FILE NO



NOTES:
1. COVER AND FRAME TO BE MACHINED TO A TRUE BEARING ALL AROUND
2. MATERIAL SHALL BE OF GRAY CAST IRON A.S.T.M. A-48 CLASS 30
3. 2 HOLE LID FOR SANITARY SEWER
4. 18 HOLE LID FOR STORM SEWER

WATERPROOF AND TAMPERPROOF MANHOLE FRAME AND COVER

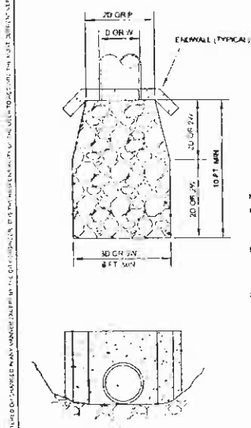
City of West Linn | DATE JULY 2008 | DRAWING NO WL-214 | FILE NO



NOTES:
1. USE SUBURBAN TYPE ONLY IN NON-TRAFFIC AREAS, AND ONLY WITH APPROVAL BY THE CITY
2. COVER AND FRAME SHALL BE GRAY CAST IRON ASTM A-48 CLASS 30.
3. COVER AND FRAME TO BE MACHINED TO A TRUE BEARING ALL AROUND
4. NOTCH LID FOR LIFTING HOOK.
5. OPEN GRATES REQUIRE APPROVAL BY CITY AND MUST BE BICYCLE SAFE IF USED IN TRAFFIC AREAS

MANHOLE FRAME AND COVER

City of West Linn | DATE JULY 2008 | DRAWING NO WL-805 | FILE NO



D = PIPE DIAMETER
W = BOTTOM WIDTH OF CHANNEL
P = WETTED PERIMETER OF CHANNEL

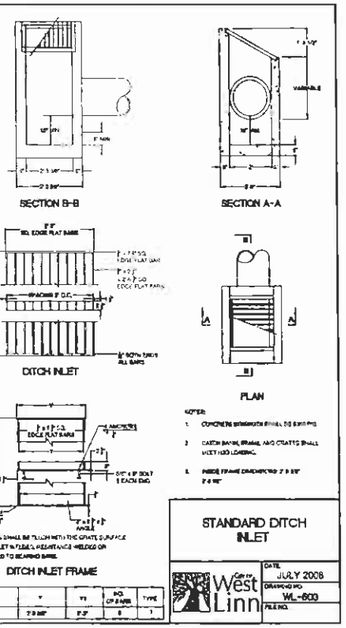
DESIGN FLOW RATE	ROCK SIZE (EQUIVALENT DIAMETER)
0 - 10	4" ROCK
10 - 12	6" ROCK
12 - 14	1/2 TON
14 - 16	1 TON
16 - 18	3 TON

SELECTION OF RIP RAP (SEE NOTE 1)

NOTES
1. DIMENSIONS FOR RIP RAP APPLY TO FLOWS
   - 2 CFS RIP RAP FOR FLOWS
   - 2 CFS MUST BE ASSIGNED BY AN ENGINEER
   - FLOWS 20 CFS SHALL USE ENERGY DISSIPATOR
2. TYPE OF RIP RAP
   A. REGULAR QUARRY STONE CLASS 50-300
   B. COBBLESTONE
   C. CONCRETE ONLY ALLOWED UPON APPROVAL OF ENGINEER
3. PLACEMENT
   A. MINIMUM DEPTH = 1-1/2 TIMES AVERAGE STONE SIZE
   B. ROCKS SHALL BE PLACED TO PROVIDE A MINIMUM OF VOIDS.
   C. SLIME AND EDGES OR CONCRETE SHALL FILL IN AT LEAST 1/2 THE VERTICAL DIMENSION
   D. RIP RAP IS TO BE PLACED OVER A NATURAL SEDIMENT. CLOTH MAY BE CREATED TO PLACED OVER A GRAVEL BEDDING AS REQUIRED BY THE CITY

STORM SEWER OUTFALL

City of West Linn | DATE JULY 2008 | DRAWING NO WL-514 | FILE NO



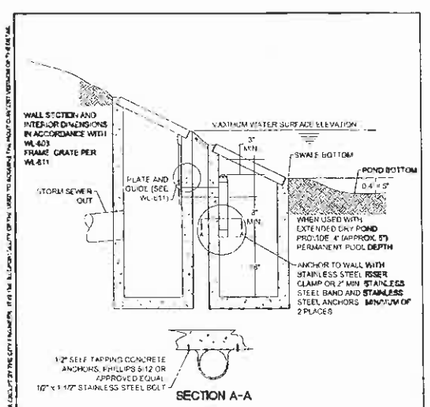
NOTE:
1. CONCRETE STRENGTH SHALL BE 3000 PSI
2. CATCH BASIN, FRAME, AND GRATES SHALL MEET AASHTO LOADING.
3. INSIDE FRAME DIMENSIONS 2' X 3'6" 2'-6 1/2"

NOTE:
SIX CIRCULAR VENTS SHALL BE FLUSH WITH THE GRATE SURFACE AND MAY BE FILLET WELDED, RESISTANCE WELDED OR ELECTROFORMED TO BEARING BARS.

FILET TYPE	Y	Y	Y1	NO. OF BARS	TYPE
D	2'-3 1/4"	2'-3 1/8"	2'-2"	8	1

STANDARD DITCH INLET

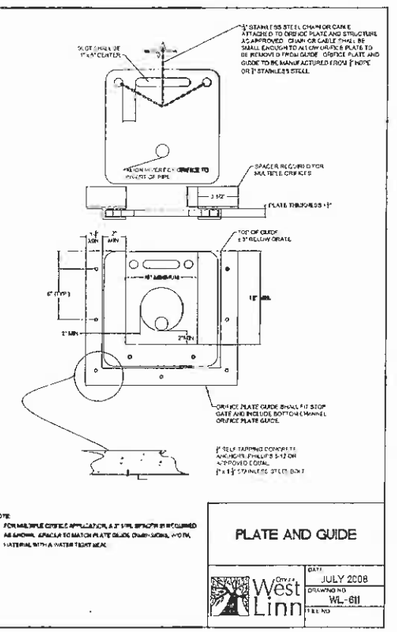
City of West Linn | DATE JULY 2008 | DRAWING NO WL-603 | FILE NO



NOTES:
1. CONNECTING PIPE AND TEE SHALL BE 4", 6", OR 8" AWWA C-900 OR ASTM 3034 PVC AND ONE SIZE LARGER THAN THE ORIFICE OPENING
2. MAXIMUM ORIFICE OPENING SHALL BE 8" DIAMETER.
3. STRUCTURES SHALL CONFORM TO STANDARD DRAWING NO 3310 DITCH INLET.
4. FRAME AND GRATE SHALL CONFORM TO STANDARD DRAWING NO 400, DITCH INLET FRAME AND GRATE.
5. PLATE AND GUIDE SHALL BE SECURED FLUSH AGAINST WALL OF STRUCTURE AS APPROVED.
6. MAINTAINANCE ACCESS REQUIRED TO WITHIN 10' OF CENTER OF BOTH STRUCTURES.

STANDARD DETENTION POND OUTLET

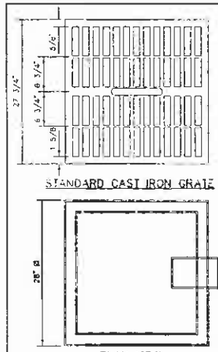
City of West Linn | DATE JULY 2008 | DRAWING NO WL-610 | FILE NO



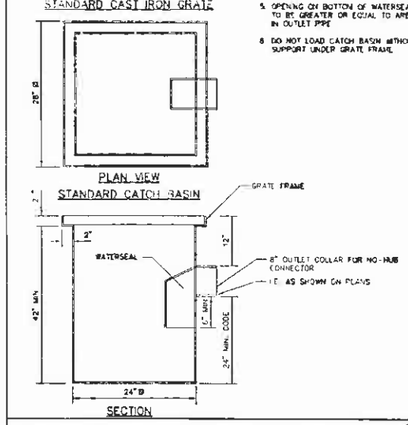
NOTE:
FOR MULTIPLE ORIFICE APPLICATION, A 2" MIN. SPACER IS REQUIRED AS SHOWN. ADJUST TO MATCH PLATE GUIDE DIMENSIONS. WOOD MATERIAL WITH A WATER TIGHT SEAL.

PLATE AND GUIDE

City of West Linn | DATE JULY 2008 | DRAWING NO WL-611 | FILE NO



SPECIFICATIONS
1. ALL WELDED STEEL CONSTRUCTION
2. 10 GAUGE STEEL MINIMUM THICKNESS
3. 3" THICK HEAVY DUTY CAST IRON GRATE
4. COATED INSIDE AND OUT WITH ASPHALTIC PAINT
5. OPENING ON BOTTOM OF WATERSEAL TO BE GREATER OR EQUAL TO AREA IN OUTLET PIPE
6. DO NOT LOAD CATCH BASIN WITHOUT PROPER SUPPORT UNDER GRATE FRAME



METAL TRAPPED CATCH BASIN
N.T.S.

5

Bid Drawings - July 2, 2010

REGISTERED PROFESSIONAL ENGINEER 51051PE OREGON DARWIN B. SMITH EXPIRES JUNE 30, 2010

City of West Linn
City of West Linn Parks and Recreation
22500 Salamo Road
West Linn, OR 97068
Phone: 503-657-0331

MARYLHURST PARK PHASE I
CIVIL DETAILS
STORM DRAIN SYSTEM

otak Incorporated
17355 SW Boones Ferry Rd.
Lake Oswego, Oregon 97035
Phone (503) 635-3618
FAX (503) 635-5395
Internet www.otak.com

15722 L5.08
Project No Drawing No
L5.08
Sheet No

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Rain Garden Plants by Others

ZONE	BOTANICAL NAME	COMMON NAME
A	CAREX APERTA	COLUMBIA SEDGE
A	CAREX DENSA	DENSE SEDGE
A	CAREX PANICEA	GRASSLAND SEDGE
A	CAREX TECTORUM	NEW ZEALAND ORANGE SEDGE
A	CAREX TUMULICOLA	FOOTHILL SEDGE
A	DESCHAMPSIA CAESPITOSA	TUFTED HAIR GRASS
A	ELEOCHARIS PALUSTRIS	CREEPING SPIKE RUSH
A	JUNCUS BALTICUS	BALTIC RUSH
A	JUNCUS EFFUSUS "GRACILIS" (JUNCUS SP.)	COMMON RUSH
A	JUNCUS EFFUSUS "SOLID STEM"	COMMON RUSH
A	JUNCUS EFFUSUS "GRACILIS" GRANT	COMMON RUSH
A	JUNCUS PATENS	SPREADING RUSH
B	ARCTOSTAPHYLOS UVA-URSI	KINNIKINNICK
B	BLECHNUM SPICANT	DEER FERN
B	CORNUS SERICEA VAR. KELSEYI	DWARF RED TWIG DOGWOOD
B	EUROPE MUNGAR "BIG BLUE"	BIG BLUE LILY TURF
B	GAULTHERIA SHALLON	SALAL
B	MAHONIA NERVOSA	LOW OREGON GRAPE
B	MAHONIA REPENS	CREEPING OREGON GRAPE

4	6/27	BDS	STORM SYSTEM REVISIONS
REV	DATE	BY	DESCRIPTION

City of West Linn
City of West Linn Parks and Recreation
2250 Salamo Road
West Linn, OR 97068
Phone 503-657-0331

Bid Drawings – July 2, 2010

MARYLHURST PARK PHASE I

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